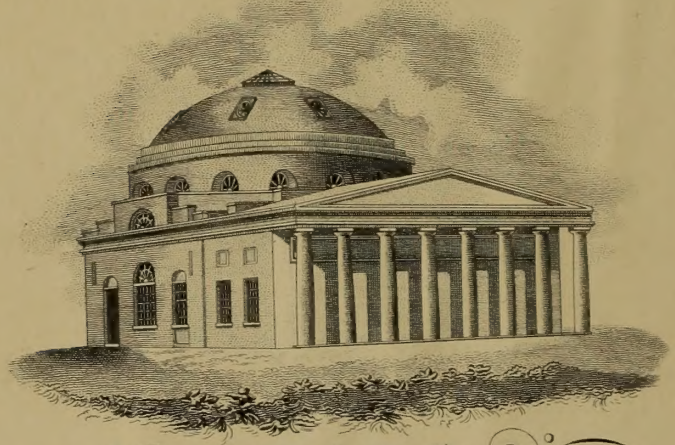
LIBRARY
OF THE
School of Medicine



University of Maryland

Laurel Hill Medical Theses

Early Doctor of Medicine Theses and Dissertations with Corrected Tables of Contents

These manuscript dissertations, either on bound Dissertation or on Inaugural Essay, were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Philosophy during the years 1811-1829. The individual dissertations were bound together during the 1890's. The original tables of contents for the bound volumes contained no page numbers or subjects' names, titles, and/or years. To alleviate some confusion, an additional "Corrected Table of Contents" has been inserted in the beginning of each volume.

The project team who investigated and corrected the tables of contents were: Richard C. Wagner, Historical Librarian/Preservation Officer, Mark Millington Pearce, Manuscript Management Librarian, Angela Gadmer and Carol Hartzog-Thorp, Assistant Librarians, Sarah Ingersoll, Alice Sullivan and Megan Wolff, Student Employees.

These dissertations were digitized in 2011-2012 and are available in the UM Digital Archives (archives.umaryland.edu) and the Internet Archive (www.archive.org).

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

These dissertations were digitized in 2011-2012 and are available at the UM Digital Archive (archive.hshsl.umaryland.edu) and the Internet Archive (www.archive.org).

(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1856 (a)

Author	Title	Notes
Hodson, Eugene	Intermittent Fever	
Norfolk, William Henry	Typhoid Fever	(Partially faded.)
Wales, Philips	General Principles of Hernia	(Partially faded ink.)
Scheldt, Otho Francis	Strangulated Hernia	
Hamilton, Alexander Duvall	Pneumonia	
Bruce, William Henry	Apoplexy	
Hall, John Edward	Dropsy	
Gibson, George S.	Phthisis Pulmonalis	
Sappington, Ashbury Sutton	Evolution of Heat in the Animal Organism	
Davis, Francis M.	Rheumatism	(Partially faded. Ink bleeds.)
Steele, Joseph W.	A Clinical Report of Six Cases	
Iglehart, David Thomas	Uterine Hemorrhage	
Williams, Thomas Hart Benton	Scarlet Fever	
Nickerson, Charles Edward	Bronchitis	
Kennedy, Booth	Acute Bronchitis	
Glenn, William Ellis	Pneumonia	(Ink bleeds.)
Smith, John Sparrow	Acute Menningitis	

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

Author	Title	Notes
Hodges, William Edward	Typhoid Fever	(Faded ink.)
Stites, John Stump	Dislocation of the Hip Joint	(Title page partially faded.)
Kemp, John Dodson	Necrosis	
Claggett, Benjamin Franklin	Venesection	(Partially faded ink.)

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

UNIVERSITY OF MARYLAND

THESES

1856(a)

Hodson, Eugene	Intermittent Fever	40p.
NORFOLK, WILLIAM Henry	TYPHOID FEVER [illegible]	[illegible]
Wales, Philip S.	General Principles of Hernia	32p.
Scheldt, ~~Otto F.~~ Otho Francis	Strangulated Hernia	20p.
Hamilton, Alexander ~~D.~~ Duncan	Pneumonia	22p.
Bruce, Wm. Henry William	Apoplexy	25p.
Hall, ~~J. E.~~ John Edward	Dropsy	35p.
Gibson, George S.	Phthisis Pulmonalis	22p.
~~Anonymous~~	~~Vital Actions of the Body~~	~~23p.~~
Sappington, Ashbury Sutton	Evolution of Heart in the Animal Organism	23p.
Davis, Francis M.	Rheumatism	36p.
Steele, Joseph W.	A Clinical Report of Six Cases	35p.
Iglehart, David ~~T.~~ Thomas	Uterine Hemorrhage	30p.
Williams, ~~T. H. B.~~ Thomas Hart Benton	Scarlet Fever	34p.
Nickerson, Charles ~~E.~~ Edward	Bronchitis	18p.
Kennedy, Booth	Acute Bronchitis	14p.
Glenn, ~~Wm.~~ William Ellis	Pneumonia	40p.
Smith, John ~~S.~~ [illegible]	Acute Menningitis	16p.
Hodges, Wm. E. William Edward	Typhoid Fever	24p.
Stites, John ~~L.~~ Stump	Dislocation of the Hip Joint	21p.
Kemp, John ~~D.~~ Dodson	Necrosis	28p.
Claggett, ~~Benj. F.~~ Benjamin Franklin	Venesection	32p.

1 Mb
18912

328
B. 38

An

Inaugural Dissertation.

On

Intermittent Fever

Submitted to the examination,

Of the

Provost, Regents & Faculty

Of the

University of Maryland

For

the Degree,

Of

Doctor of Medicine.

By

Simeon Horton

of

Vienna, Dorchester County,

State of

Maryland.

1856.

Preface

In choosing a subject, for my 'thesis', I should, probably have done much better, to have selected that, with which my acquaintance was least profound; for there will never occur a better opportunity, for fixing that which you may read or write, firmly and forever in your mind.

Yet although I was well aware of this important fact; circumstances, - such as the great prevalence of this disease, in the portion of the world, where - should I be so fortunate, as to receive your votes - I shall spend my days; together with the advantage of having already treated, this affection, - determined my choice.

I have only to add, that I have honestly endeavoured, to make this 'thesis' correct; While at the same time, I have left unmentioned, many things, which might properly, have been inserted; but which were, in my opinion unnecessary.

Concious, of the many errors, with which the following sheets, are disfigured,

Preface.

I nevertheless, submit it willingly and even cheerfully, to the examination of the Faculty of the University of Maryland, feeling sure that, they will deal as kindly with it, as it consistent, with the dignity of their profession, and their own high standing.

E. H.

Dedication.

A drowning man, will catch at a straw: to see, if perchance, it may not bring him safety.

And I, though in Terra Firma; finding myself in an equally critical position; hope that I shall not be refused permission, to have my poor thesis & myself, by inscribing it to my preceptors, — Drs. Joseph Roby, & Hunters — Shrigley & Johnston.

Come weal, come woe! I shall always acknowledge, their earnest efforts, to make me fit, for the position of that profession, to which, they have devoted themselves.

I have, the honor to be —

Their Obt. Servt.

Eugene Hodson

Baltimore City.
February. 14th
Anno Domini, 1856.

Intermittent Fever.

This disease, may be divided into three distinct varieties, or species, as, — Quotidian, Tertian & Quartan, and each of these varieties or species, will admit of sub division, making, the double Quotidian, the double Tertian, the duplicated Tertian & the triple Tertian; sometimes, we meet with a variety, known as the double Quartan.

The Quotidian, usually makes its attack, in the morning, and at a regular hour, of every day; if it be of the double form, a second paroxysm, will occur, in the evening; less violent, however, than that of the morning.

A Tertian, generally manifests its presence about noon, and an entire day intervenes, between the paroxysms; if it be a double Tertian, the patient will suffer an attack each day; but they will be made, without regard to regularity; if triple, two attacks will take place on one day & only one attack on the following day; in the duplicated form, two paroxysms will occur in the same day, but none on the day succeeding.

A Quartan, differs from the varieties, in being more likelly to make its onset in the evening; & also in the fact, that two whole days elapse before the patient suffers, a second attack;

Page 1st

Intermittent Fever.

if, however, it be of the double Quartan type two paroxysms will take place in three days.

Each, of the three great varieties, appear to be governed by a particular rule; which though true, on the average, is sometimes violated; as Tertians make their attack in the morning, Septans, at noon & Quartans, in the evening, — generally.

— Intermittent fever, has three distinct stages, — cold, hot & sweating; the transition from one to the other, going on slowly and steadily.

A person, about to suffer an attack, of this fever, will experience sensations of nausea, lassitude, and a disinclination to exertion, generally; accompanied by, a sense of coldness and oppression, about the Epigastrium; after a time, an irresistable desire to stretch the limbs, supervenes, and should they be able to grasp any fixed object, with their hands, despite even considerable muscular force, much momentary relief, seems to be obtained, thereby.

As the paroxysm, increases in violence, the skin, becomes dry and corrugated, and the face presents the pallid hue of Death.

Page 27th

Intermittent Fever.

During the first stage, of the paroxysm the patients limbs, are beyond his control; violent shiverings come on, and his teeth chatter so forcibly & incessantly, as often to render some protection necessary; all the secretions, except that of the Kidneys, are usually diminished; while the tongue is dry and white.

After these sensations, have lasted a longer or shorter time; they are succeeded by others of quite an opposite character: the coldness, begins to alternate with flushes of heat, and after a shorter or longer period, the skin apparently, has resumed its healthy condition; but unfortunately the reaction, which is now taking place, does not stop here; the heat increases, the surface of the body, becomes hot and dry; the pulse full and rapid, and the breathing deep & oppressed; this, the second stage, is accompanied by great restlessness, — even delirium; and the second, or hot stage, is fully established.

After awhile, however, this terminates, & the third, or sweating stage, ensues, with great

Frequent

relief to the patient; the secretions, become plentiful the pulse natural, and all uneasy sensations depart, and in the course of a few hours the patient, feels almost as well as usual.

There is, however, one thing, worthy of notice in regard to this;-if the attack, be the first one which the individual, has ever suffered, ~~they~~ he will not so soon, recover from its effect, the same is true of a person, who has not had an attack for some considerable time previous; While, on the contrary, a person, who is accustomed to the disease, will appear to be perfectly well, in a very short time, after the conclusion of the third stage.

Cause — This disease without doubt, owes its origin, to some noxious emanations, from the surface of the earth; known, generally as "Malaria"; by some, denominated as "Marsh miasmata", but incorrectly, according to Doctor Watson, because it is not peculiar to marshy places.

A visit to Dorchester County, State of Maryland, will, I think, prove conclusively, that a marsh

or even marshy grounds, are not necessary to the development of Intermittents.

"Very little, is known of the nature of Malaria. Dr Watson, declares it to be "gaseous or aëriform," at any rate involved in the Atmosphere, but imperceptible to our senses: and of whose physical or Chemical qualities, we are ignorant.

Low, moist grounds, appear to be the favorite lurking places, of Intermittents; in illustration — the 'Pontine Marshes' near Rome, which have for ages, possessed a kind of celebrity on this account; and the same, applies with equal truth, to the low & level coast of Holland

But, it is in the Upper Provinces of India, that Intermittents are most deadly; even the Wild Animals, forsake the Woods, during the extreme heat, and immediately after the rains of May; for it is then that the 'Malaria' is most abundant and most deadly."

Diagnosis — of Intermittent fever, is generally attended with little difficulty; the regularity of the fever-fits, the completeness of the intermission & the characteristic stages &

the paroxysms, are sufficient to distinguish it from other forms of fever.

Prognosis — The Intermittents of temperate climates, are among the least dangerous, of all febrile affections; in hot latitudes, however, the prognosis, would be much more unfavorable.

Death, from a simple Intermittent, sometimes occurs; but when it happens, it is almost always, during the cold stage; and is characterised, by symptoms of an apoplectic nature.

The more regular, an Intermittent is, in its attacks; the greater hopes, we may entertain, of effecting a cure; a scabby & humid eruption, about the mouth & nostrils, is always, a favorable sign.

When delirium occurs, — which is but seldom — it, is considered a more unfavorable sign, than Coma, merely.

The Tertian, is the most manageable variety; and next to this, is the Quotidian.

Intermittents, often take upon themselves, the Remittent form; which is a

highly unfavorable change.

The untimely, employment of tonics & stimulants, frequently, conduce to such change in the form, of the fever.

Treatment —

In considering the treatment of Intermittents, it is necessary, that we consider separately, that applicable to the Cold stage & that proper to the hot stage.

It is of the first importance, that the Physician, should bear in mind the fact, that, it is in his power to cut short, the first stage, to render it less violent, or even to prevent its threatened attack, altogether.

In order to abort, or at least to diminish the violence of the first stage, — Warm diluent drinks should be given, weak cordials &c.

Warmth, by external agents, should also be used as the warm bath, or a simple pediluvium: Steam, from a vessel of boiling water, hot bags of sand, bran or salt; hot bricks, or bottles of ~~hot~~ water.

Doctor Power, of the Middlesex Hospital

recommends, a hot air-bath; this mode of creating external warmth, has received the approbation, of the celebrated Walton; who, thus describes the apparatus, its mode of application, — "a semi-cylinder, or tucker of wicker-work, closed at one extremity, is laid over the patient, and covered by blankets.

Through a hole, in the centre of the closed extremity, one end of a curved iron tube, is passed; the other end, expanded into a bell, like dromedaries; a spirit lamp, being placed beneath the bell, the air between the wicker-work tucker, soon, is thus rendered very hot."

According to the Medicina Practica, of Dr Cotter, Opium, is the great remedy, for preventing, the threatened attack; — "Agues, being frequent, among the crew of the Dryadem, &c, resolved to try the effect, of Opium, in preventing the fit; at its first approach, a dose of Laudanum, never less than thirty drops, was administered; if this did not bring on some warmth, in twelve or fifteen minutes, from two to twenty drops, additional, were administered;

in most cases, an exhilaration of spirits, was speedily perceived; the pulse, from being weak, quick & at times irregular, became less frequent, full & regular; an agreeable warmth was diffused over the whole frame, and every unpleasant feeling vanished; sometimes in a quarter of an hour."

As to emetics, Dr Cudie, thus speaks, – "We have repeatedly, prevented the accession of the chill, by administering to the patient, just before, the attack was expected, an emetic dose of Ipecac: and after this had stopped operating, immersing his feet in hot water: and as soon as he is placed in bed, giving him from thirty to forty drops of laudanum, in a tea spoonful of the compound tincture of Opium; by this treatment, not only is the chill prevented, or delayed, but the whole paroxysm, is often rendered milder."

Doctor McBride, affirms, that – "bleeding, performed in the cold stage, will prevent the paroxysm; and with it the disease: and even when its effects, are less immediately beneficial,

it will generally stop the cold stage, shorten the paroxysm and mitigate its severity; affording speedy and great relief, to the distressful sensations, of the patient; and subsequent paroxysms, will be mild and few.

One bleeding, is generally sufficient; sometimes two are required, said in more."

On this subject, Doctor Potter, however remarks that, - "the experience of "other" sober minded practitioners, does not favor, all the theory, of Dr McIntosh; but thinks, that in hot climates, it may, prove of vast importance."

Our own Professor of the "practice & principles" of Medicine, is quite in the theory, of Dr McIntosh also; countenanced thereby Doctor Lambkew, I, may be permitted to say, that I consider, Dr McIntosh's mode of treatment, as exceeding in danger and escape.

Without doubt, any impression made upon the system, either mentally, or, physically, - will sometimes prevent the impending chill; - I speak only of such, as we see in this country or climate.

— A weak, debilitated frame, is one of the

predisposing causes; I should be loath to use the lancet, therefore; as it would have a strong tendency to produce an anemic condition; thus leaving the patient more liable to a second attack.

But, if external warmth, be properly made use of, it would I think, – in conjunction with internal remedies – prove far more beneficial at the time, and certainly leave the patient in a far better condition, to resist a future attack.

In the Intermittents of our State, at least, this fever is but seldom, so severe, as to warrant so Heroic a measure, as bleeding.

While however, we look upon bleeding as being so dangerous in the cold stage; we freely acknowledge, that in the second, or hot stage, it may not only prove useful, but even be imperatively demanded; but even here, it is but seldom called for.

As a general thing, cool acidulated drinks, refrigerant diaphoretics, will be all that is necessary for this stage; keeping it under control and modifying its violence.

As soon however, as the slightest degree of perspiration, becomes sensible, either to the touch or eye; or as soon as the skin, begins to loose the hot, dry feel, all cooling drinks should be with-held; for now comes on the third and last stage— the sweating stage.

And during its continuance, nothing I apprehend is needed, unless it be, that the patient, should be kept well covered by the bed-clothes.

Warm, bland drinks, may be allowed; and the desire, the patient generally manifests to cast aside the coverings, should be prevented, until the perspiration begins to sensibly diminish: then piece by piece, they may be removed; I have myself, seen the advantage derived from this: and one who follows it, will find himself much better on the following day, than he, who, the instant the sweating stage is over, rises from his bed, and even goes out of doors, exposing himself to all kinds of weather; as is not unfrequently done.

Intermittent Fever.

Treatment, during the intermission —

Unless, the bowels, are in a very loose state, the first thing to be done, is, to purge your patient; for which purpose, the Compound Pills, are most excellent.

After this, the treatment becomes very simple; for we have in the Sulphate of Quinine, an specific, or if that, be saying too much, — we have a Medicine, that, if, properly administered will in 8 or 10 out of every fifty cases, effect a cure.

— I do not write this because the 8 or 10 state pretty much the same thing; but from personal experience.

Nor do I believe, it ever will fail, if administered properly; and the directions of the Physician, are properly attended to. + failed

I have seen persons, in the third stage, & profusely covered with perspiration — in their beds, go into the cold, even damp air; tell them one infatuated person — it is very likely you will get your trouble, for your pains; should however the chills return in a day, or two, the fever stays.

pronounced incompetent, if not "incompos mentis", while the Quinine is condemned as not being fit for the dose: it is to such, that Hallenburger; Peter & Wright & others owe their thanks, for patronage.

Although the patient often causes the well directed efforts of his Physician to fail; yet, sometimes the Physician deserves blame, too often, they content themselves, with stopping the chill, merely.

That such is bad practice, will readily be acknowledged by every frank & intelligent son of "Esculapius".

And though the Physician, who practices after such a fashion, may make money; he must, at the same time, inevitably kill, race his profession; and a true man would & should labor, far harder for the honor of his profession & the well being of his fellows, than for filthy lucre; which however, — to do its justice — is so necessary, and enticing to humanity.

Having given, simple Quinine, to stop the

chill, we have nothing to do, – if the patient be otherwise healthy – except to continue to give small doses of Quinine or of Cinchona, for two or three weeks.

Professional men differ somewhat, as to the quantity, to be given at a dose

If the fever, be of the Tertian or Quartan type, I should certainly administer it, after the mode, usually practised, at the "Infirmary, that is – for 11. or 3. every two or three hours.

I may be wrong, but I am strongly inclined to believe, that Quinine, – if not every tonic – acts far more beneficially, if given in small doses; again many persons, females especially, suffer from roaring in the head, which circumstance, in my opinion, is to be avoided.

"Inordinate Medication, is poisonous Medication", and why, – let me ask – may not this "roaring", be considered a sign, of the presence of too large a quantity of the drug?

Intermittent Fever

I am aware that the same time, the Physicians of deservedly high standing consider this "roaring" as showing, in a manner, that cannot for a moment be mistaken, that the Quinine is, exerting its specific effect.

Admitting this; can we not shew, that it is also a symptom, of "Inordinate Medication; that, while it is exerting, its specific effect, it may at the same time, be exerting a poisonous influence; and to which, some patients may be more liable, than others.

If summoned to a patient, with a slow, full pulse, great insensibility, a livid countenance, accompanied by stertorous breathing, we should at once conclude that, this state, was produced by taking a poisonous dose of Opium: yet, the symptoms in the case is that upon the administration of every dose, of Opium; differing in intensity, only.

And, in the administration of Quinine a slight buzzing, is almost always felt

[illegible] or the sensation

if the dose be increased, the ringing in the ears also increased, sometimes to a roaring sound. When then, this "tinnitus aurium" takes place, would it not be as reasonable to say that, the quantity of the drug was greater than the system could bear? as to say that it was a specific. There is also Quinine, not exerting its usual influence.

In a case of Protracted Ague, it would be necessary, to administer the Quinine in larger doses, than in either of the other varieties; because the intermission is much shorter; and we might not be able to give sufficient, if prescribed in small doses, for cases to be speedily recovering from.

As I have before remarked, I do not doubt, but that Quinine is sufficient for the cure of every case of uncomplicated Intermittent Fever, but, owing to its high price, it is necessary to supply its place with other remedies, whenever we can.

The most useful of these are

Intermittent Fever.

The Sesquicarbonate of Potash, Sulphate of Potash, pulverized charcoal, Spiders web, Willow-bark & Piperine; all these, together with less prominent remedies, are used for the cure of disease, by many eminent persons; and frequently with great success.

Quinia, may be administered by the rectum or endermically, by being sprinkled, in quantities, varying from gr x to x, upon a blistered surface previous; & upon, when thus exhibited, its specific effects — says Doctor Indie.

Prophylaxis.

To prevent relapse or return Thus speaks — "persons, who have been exposed, to the exciting cause, of Intermittent fever, or who have once had it; should, in whatever season, they may happen to be, avoid non fatigue & exhaustion of all kinds; sudden exposure to cold or heat; and the neglect of changing wet clothes; wet shoes or stockings, for instance.

In a Malarious district, persons should

bear in mind, the fact that the Malaria is much more active, in the night time, than in the day; and close to the earth, than in the higher parts of the Atmosphere.

They should refrain, therefore, from going out early in the morning, or later in the evening; and in order to [illegible] the Miasm, from [illegible], or [illegible] in [illegible].

They, who are obliged to go out early, in the morning, in countries, where fevers are rife, should take care not to go out fasting; or, if [illegible], should be taken first, or at any rate, some moderate stimulus.

— A crust of bread or a glass of wine, or a small quantity of [illegible] will fortify the system, against the [illegible] influence.

Measures of this kind, are [illegible] extremely beneficial, in the [illegible] the living part, for instance, to [illegible] a warm breakfast, before going out in the morning, on "Malarious shores," in fact:

Intermittent Fever.

Whatever the hour of starting might be.

Generous diet, and a fair allowance of fermented liquor, are proper also, for all persons in Rural districts, or Countries."

I have taken Dr Walton's opinion to, for consideration, principally because I am so happy enough to believe, that I could not improve upon it; and also because, substantially I agree with him.

I may be pardoned, however, if I venture to disagree with him, as regards the propriety of using fermented liquors.

And even there, I do not disagree, on account of any doubt as to its efficacy; but because, I deem it more dangerous to Humanity generally, than Arsenic or Hydrocyanic Acid.

On every side, we see men, of such feeble constitutions, whose [illegible] as a medicine, naught can, in future restrain them.

Besides, if a well man takes two or three grains of Quinine, two or three times a week, it will answer equally well, and not expose him to the power, which has prostrated, so many Patriots of our Noblest & best.

Inaugural [illegible]

[illegible]

Hydroid [illegible]

Submitted in Can[illegible]

to the

Honorable Regents & Faculty of Physic

of the

University of Maryland

[illegible]

Degree of Doctor [illegible]

By

Wm. H. Norfolk

Balto. Md. 1856

[illegible]

Gentlemen of the Chem. Soc.

Professor at the University of Maryland

This is dedicated as a mark of respect

Wm. H. Stone

Gentlemen

In compliance with the rule of this institution, viz, the presentation tickets, the deposit of a thesis, and stock attendance at the lectures, all [illegible] have endeavored to do to the best of my ability, and I hope that it may [illegible] your kind appreciation.

Wm. H. S.

Typhoid Fever

This is a febrile affection presenting a diversity of symptoms, it has long been known in its varied [illegible] but [illegible] perceived until after the researches of Louis by whose labors we are possessed of the means of recognising it in all its forms.

It generally commences with a chill followed by the usual symptoms of fever. The patient feels weak, languid and general soreness of the limbs.

The face is generally, but not always flushed, the skin hot, pulse quick and the tongue furred. These symptoms may last for several days or more before the patient feels himself ill enough to take to his bed. The disease being fairly established, there is looseness of the bowels amounting to slight diarrhoea. If this be not present, the bowels are easily acted upon by cathartic medicines, and in much smaller doses than usual, and if given in large doses, [illegible] The [illegible]

is much accelerated, the face flushed, heat [illegible]

[illegible]

The pulse is often quick, but rarely exceeding 90 or 100 in males, and average 110 to 130 in females.

Epistaxis is a symptom in this disease and is not of much importance than as a sign. The symptoms above mentioned become increased in intensity, the pulse [illegible] and the countenance exhibits a dusky complexion. The tongue coats itself with a thick fur, and shows a tendency to become dry at the tip and edges. The stomach is irritable. There is symptomatic distention of the bowels, which may be discovered by pressure with the hands. The patient often has cough with mucous expectoration and signs of bronchitis are detected by the stethoscope. The urine is [illegible]

About the seventh day, good will by [illegible] nation discover upon the surface of the abdomen a number of small red spots, disappearing upon pressure; these are called rose-spots and constitute a characteristic [symptom in this form of fever

They are about a line in diameter, and are slightly elevated. At the same time, and sometimes later, a crop of vesicles will also be detected upon the neck and thorax, called Sudamina. With the symptoms at first detailed are aggravated, delirium supervenes, with buzzing sounds in the ears, followed by deafness and sometimes deafness. The eyes are injected, the tongue becomes incrustated with a black coating which often cracks and peels off, and the teeth are covered with sordes. [illegible] muscles. As the patient becomes more feeble he slips down in bed; there are involuntary evacuations, hemorrhages from the bowels or other mucous surfaces [illegible] liability of the skin to slough.

This is general course of the disease when it terminates unfavourably. But it is to terminate favourably, the symptoms abate, the delirium brightens, the tongue clears, the sordes are

fre[illegible]

health. Convalescence under these circumst[illegible]

speedily takes place in many instances.

If the tongue ceases to clean, and again becomes

dry, and other symptoms aggravated, the patient

[illegible] If the tongue ceases to [illegible]

[illegible] dry, it indicates an increase of inte-

tinal disease. The patient about the second week

is seized with intense pains in the abdomen, vomiting,

[illegible] pulse, [illegible] pulse, symptoms

coldness of the extremities. The cause of these symptoms

is perforation of the intestines, and escape of its contents

into the peritoneal cavity, producing inflammation.

It occurs most frequently in the mild form of this

disease, and is almost always fatal.

The duration of the disease is variable and uncertain.

[illegible]

[illegible] weeks. Diarrhoea is often a diagnostic symptom i[illegible]

[illegible]

When there is apparent Constipation, the bowels are acted upon much more easily than in most other febrile diseases. It generally commences a few hours after the attack, and the stools are [illegible] The diarrhoea depends on some inflammation or irritation in the intestinal mucous membrane. Tympanitis is generally a symptom in typhoid fever. The abdominal tissues become very much distended. Cousins [illegible] to the patient.

Between the seventh and fifteenth day, you will discover upon the abdomen a number of small red spots, called rose spots, which have been mentioned before. They are about a line in diameter, lasting about two or four days, and afterward fade away. [illegible] [illegible] more.

The period of eruption continues from three to fifteen days. The practitioner should remember the distinction between the rose spots & petechiae; the former disappear on pressure, the latter do not.

and breast appearing about the third or fourth day. Hemorrhage often occurs in this affection, take place from the nostrils, but has in such quantities as to be very alarming.
It sometimes commences from the bowels which injures the patient by the exhaustion it produces and requires the attention of the physician.

in this disease, for instance severe headache with which the patient is troubled, after continuing for sometimes gives way to sleepiness or delirium.
The patient sometimes suffers from habitual of mind and if questioned shows an indisposition to answer.
Delirium is generally mild in its character, but is sometimes so violent as will cause the patient to rise from his bed and leave his room.
In such cases it is necessary that the attendant should

should be required to prevent the patient from doing any injury to himself.

Retention of urine often occurs in this form of fever, in consequence of defective sensibility of the bladder. The muscular coat of the ureters becomes so distended as to lose power of contraction, and thus the urine accumulates often causing inflammation.

Anatomical Character. — There is scarcely any organ of the body that may not be the seat of inflammation or anatomical lesion. Those which are considered characteristic of this fever are thickening, softening and ulceration of the glands of Peyer in conjunction varying with stage of the disease.

The ulcerated patches of those glands occur in numbers [illegible] appear all together at the same time but in succession. These ulcers are not necessarily fatal, since they have been found by dissection to show a tendency to heal. These glands become so thickened as also affect

like those of typhus. [illegible]
often attended in [illegible]
found softened. [illegible]
ulceration of the pharynx, softening
sometimes of the liver and kidneys, [illegible]
of the lungs, and sometimes inflammation of
the meninges of the brain. The blood is
same as in health except [illegible]
[illegible]

Causes — On this point little [illegible]
It attacks all classes and [illegible]
it is often seen [illegible]
are crowded together, [illegible]
[illegible]
It occurs in prisons, [illegible]
of ships during or after [illegible]
It cannot be said to be [illegible]
is very seldom communicated [illegible]
[illegible]
men are attended with [illegible]

which some persons are more influenced than
age seems to exert some influence over the
disease it rarely attacks persons beyond that
and those who have suffered from
attacks are said to be safe from a second.
Strangers are more liable to it than be
residents, and males than females.
It may occur at any season of the year
but most commonly in autumn and winter.
As to the precise nature of the disease little
is little known: it seems to bear some relation
to the exanthematous fevers, from the rose-colored
eruption on the outer surface, and by its affecting
the internal organs.
Diagnosis — By the slowness
by diarrhoea which is generally
disease in its commencement,
of the Quinsy and; Epistaxis: Typhoid, the

with bilious [illegible]
from the latter [illegible]
the abdomen [illegible]
case. Epistaxis [illegible]
Peyer being affect[illegible]
[illegible]

looked [illegible] larger, and
on the other hand there is no [illegible] more decided
than death should be consider[illegible]
the [illegible] remedial
measures were used at the commence[illegible]
the attack, there would [illegible]
to relieve the pati[illegible]
It is a general thin[illegible]
people to [illegible]
no possible thinking [illegible]
more [illegible], but instead of diminishing, it

[illegible] too late to render such assistance as is necessary, [illegible]. The [illegible] but shortly like to Intermittent [illegible] by the administration of [illegible] it can be materially changed [illegible]. We should not look upon [illegible] disease as absolutely desperate, but we called upon to attend such [illegible] alleviate the suffering [illegible]. The most desperate cases are [illegible] which are attended with perforation [illegible] the intestinal canal, in which case the disease is generally in its milder [illegible].

The [illegible] [illegible] lesions, [illegible] [illegible] gradualness from the resulting extreme [illegible] of pulse, coldness of the feet, the abdominal

violent

Treatment

[illegible]

[illegible] are probably [illegible].

When there is [illegible] collar of the [illegible] should be [illegible]. [illegible]

[illegible]

[illegible] Cattlemen & Cages of Tatshield [illegible]

[illegible]

[illegible]

[illegible]

[illegible] it is better

to [illegible] these [illegible]

action [illegible]

rarely called for [illegible]

[illegible] necessity [illegible]

[illegible]

indication [illegible] obviate the [illegible]

[illegible] the [illegible]

[illegible]

[illegible] be [illegible]

[illegible] from one to [illegible]

Sometimes [illegible]

Bloodletting is not [illegible]

[illegible] local inflammation [illegible]

[illegible]

[illegible]

the patient [illegible]

[illegible]

[illegible]

almost [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

during the [illegible]

The antimonials [illegible]

brought [illegible]

Calomel [illegible]

& freely used drastics. If the patient be bowels quiet and stomach not irritable the diaphoretic mixture combined with tartar emetic. When nervous symptoms [illegible]

[illegible]

spirit of nitric ether [illegible]

mixture [illegible]

[illegible]

[illegible] in most debility, [illegible] be substituted for water. [illegible] be [illegible] internally. Cold applications [illegible] head are very serviceable in [illegible] pain. Should there be much abdominal distention, small local bleeding, warm fomentations or emollient cataplasms may be used; [illegible] diarrhoea be present it should be checked by small doses of opium and [illegible] to which may be added [illegible] lead or pure tannic acid.

Nervous symptoms may be [illegible] [illegible] Hydrocyanic acid, or [illegible] not contraindicated. [illegible] the disease about the second [illegible]

[illegible]

[illegible] if the tongue is hot, pulse accelerated but not much affected. But, should not the symptoms yield; especially if the tongue remain dry and the abdominal distention continue unabated, the oil of turpentine is [illegible] remedy, particularly in that stage of the disease when the tongue commences to clean [illegible]

It may be given dose 2 to [illegible]

debility increases the pain [illegible]
be supported by stimulants. Beef tea, wine, [illegible]
milk punch, [illegible]
etc as the exigencies of the case demand. Sloughing
may be prevented by obviating pressure. Profu-
se suppuration may be prevented by slinging the
[illegible] after the application [illegible]
[illegible] may [illegible] [illegible]
[illegible] the [illegible] [illegible]
[illegible] [illegible] [illegible]

Some practitioners use cauterization
the disease, others rely upon bleeding, but not-
ably those who use cupping have found it to cure the
case, [illegible] bleeding. [illegible] be
mild and unirritating in the early period
the diseases becoming more nutritious as it advances
During convalescence it is proper to guard against
improper diet & fatigue. For debility use [illegible]

Wm. A. Norris M.D.

Inaugural Dissertation
on the

Causes, Principles of Health,

Submitted to the Examination
of the
Provost, Regents and Faculty
of the
University of Maryland
for the
Degree of Doctor of Medicine
By
Philip Skinner Wales
of
Baltimore Maryland

Hernia

The subject of this second Thesis is that rather rare disease which is usually known as hernia, from the Greek word ἔρνος, a branch but of which the popular title is rupture, from the Latin word ruptus, to burst, this latter name originating from an erroneous notion, as old as the time of the disease — that parts were supposed to have burst.

There is some vagueness in the use of the term hernia which literally means a branch, is used in its literal sense to designate all those conditions in which there is a protrusion from its proper cavity of any viscus. Thus, the protrusion of the brain through an aperture in the cranium or of the lungs through one of the thoracic walls or of a portion of intestine through the abdominal parietes, is termed hernia of the brain, lung, but when the simple word hernia is used it should always refer to the disease as it occurs in the abdomen.

Then again, abdominal hernias are

divided into those which do, and into those which do not protrude externally. Although this latter class is not commonly included under the denomination of hernia, yet practically it amounts to the same, as the obstruction exists in both cases.

[illegible] and is visibly seen through it, as the bowel passes the canal of the scrotum. In the bowel, we do not find the contents of the peritoneum to have been [illegible].

A hernia may occur at any part of the abdominal walls but it is far more liable to occur in some situations than in others, being confined not with all those parts where the tendinous and muscular structures are so arranged to allow the passage of the spermatic cord in the male and of the round ligament in the female, or the transmission of the [illegible] and nerves to the lower extremities, hence the crural and inguinal canals are the favorite habitats of this disease.

It may however occur in various other

situations, as at the umbilicus, the thyroid foramen, the sciatic notch, in the vagina, [illegible]

Causes of hernia.

The causes of hernia may be conveniently divided into the predisposing and exciting. The predisposing are those which [illegible] ment, connections and relations of the viscera of the cavities must have a protrusion; as these [illegible] the [illegible] peritoneal [illegible] with the [illegible] parts; and they are [illegible] the [illegible] gradual or sudden distension. So also, the existence of the abdomen in [illegible] which, when in action, constant the [illegible] of the [illegible] press the bowels, and thus [illegible] to force them from [illegible] the.

The muscles and their tendons have a per

-tures for the passage of vessels and nerves, which though naturally only large enough for that purpose often become enlarged with [illegible] themselves [illegible]. The [illegible] sometimes imperfectly formed and the organs escape through these unnatural openings. Debility [illegible] relaxation [illegible] duces a dilatation of the [illegible] parietes and thus affords a condition favorable to protrusions. The same cause operates in producing an elongation of the visceral attachments and thus rendering them more extensively mobile and consequently more liable to be displaced from their natural situation. Fevers and other debilitating diseases act in the same way. Old age, from the general relaxation which it induces, tends towards the same end. Those who live poorly and [illegible] [illegible] [illegible] causes [illegible] in [illegible] [illegible] from the great distension which it causes may also perhaps be [illegible]

Exciting Causes.

[illegible] abdominal muscles by violent action; [illegible] meet with this disease beginning among intelligent men, [illegible] among other persons [illegible] weight. [illegible] in calculous [illegible] enough has been known to give rise to it. Blows act in the same way as exciting causes. When the [illegible] are violently jolted downward, they are liable to protrude as happens in cavalry men, stage drivers &c.

Prognosis of Hernia.

The prognosis will be [illegible] condition of the patient, the state of the disease, its [illegible] the [illegible] strictures or inflammation, the symptoms which attend the disease, and the probability or improbability [illegible]. If the subject be an infant there will not in general result any bad consequences

is the bowel can be [illegible].

"If the patient be an adult and in the vigor of life, the prognosis will be more un[illegible]. [illegible] and [illegible] sufficiently, [illegible] inflammation of the gut and [illegible] [illegible] it, [illegible] but [illegible] generally [illegible] on stricture and this latter is particularly liable to occur at the period of life for reasons too obvious to be mentioned.

In very old persons, the symptoms do not make such rapid progress, [illegible] laxity of frame and languor [illegible]; and also these hernias are very frequently of an ancient date and the gut a good deal dilated; but if inflammatory symptoms do occur, the [illegible] of old age is no [illegible] in the treatment.

If the disease be recent and the patient young the only chance of recovery is by immediate reduction.

If the hernia is [illegible] [illegible] reduction is rendered less necessary and also —

[illegible] of [illegible]
[illegible]
hure.

An enterocele is more [illegible]
[illegible]
of the act the protrusion [illegible]
[illegible]
case the tendon binds it more tightly [illegible]
it would do if it was gradually [illegible]
a large extension. A small hernia [illegible]
result of reduction than a large [illegible]
The openings through [illegible]
takes place are [illegible]
the hole, great [illegible]
inguinal, crural, and [illegible]
more dangerous than the [illegible]

Structure of the [illegible]

When a hernia takes place it is [illegible]
covered by a process of peritoneum [illegible]
called "the sac" and consists [illegible]
body; but in some cases, [illegible]
not possess an entire sac, as in the case [illegible]
The bladder and coecum are [illegible]
so inflated, as thin and atrophied [illegible]
[illegible] or last [illegible]

[illegible] in relation to
and coecum. The sac is not a
as South says that there are
tions in the museum of St Thomas's Hospital
of these two organs possessing an entire sac.
[illegible]
its contents and the parts with
it undergo certain changes.
The neck of the sac is usually narrowed,
[illegible]
and expanded; it is commonly short consis
ting of a sudden constriction of the sac,
in this situation, as happens in many cases
of femoral hernia, but in [illegible]
gular, narrowed and [illegible]
muscular in structure.
The sac itself [illegible]
the [illegible]
at which it produces thickening,
the peristaltic motion of the intestine
[illegible]
[illegible]
occurrence has been [illegible]
to says that [illegible]

[illegible]

and the [illegible]

[illegible]

[illegible] into [illegible] or even [illegible]

Smith says that there is no preparation [illegible]

the museum of St Thomas's Hospital, [illegible]

[illegible] of a femoral hernia converted into [illegible]

[illegible]

The portion of gut [illegible]

[illegible]

narrowed [illegible] of the [illegible]

[illegible]

the effusion of serum [illegible]

this latter is the result of a slow inflammation

process [illegible]

[illegible]

from [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

time [illegible]

slips and been [illegible]

The omentum [illegible]

seem to the [illegible] as forms a [illegible]

from the general cavity of the [illegible]

[illegible]

cellects and constitutes what [illegible]

writers denominate the [illegible]

this is really met with [illegible]

hernia! Dark coarse [illegible]

[illegible]

[illegible]

does at [illegible]

enlarged [illegible]

a moveable [illegible]

swells it becomes [illegible]

The [illegible] line [illegible]

[illegible]

[illegible]

6) The more superficial [illegible]

the integument [illegible]

elongated and stretched [illegible]

[illegible]

[illegible] same thickness and sensitiveness for the pain.

The size of a hernial sac varies it is sometimes no larger than a nut at other times [illegible] dimensions of a large mellon contains [illegible] in many cases in [illegible] it, rarely are several [illegible] protrusions at the same point, more often by the protrusion of an organ with [illegible] and [illegible] covering [illegible]

When a process of the peritoneum [illegible] brothers, remains small, contracts adhesions to parts by which it is surrounded, but yet it can be [illegible] back into the [illegible] cavity [illegible]

cases without

every one

except

the duodenum

found in the

[illegible]; and pigment

pulestine and cement

[illegible]

[illegible]

the

[illegible]

[illegible] accompanied [illegible]

[illegible] and dragon [illegible]

[illegible] nothing. It occurs [illegible]

[illegible] side and is rare in [illegible]

[illegible] omentum is [illegible]

[illegible] heavy [illegible] upon the [illegible]

In intra-epiphyseal [illegible]

[illegible]

[illegible]

[illegible]

right side and consists of an irregular [illegible]

[illegible] d [illegible] them
"and [illegible]
[illegible]
in these cases [illegible]
by the posterior [illegible]
[illegible]
[illegible]
irreducible
posterior [illegible]
[illegible]
retaining his [illegible]
tient discharges it [illegible]
the impressible is [illegible]
most always irreducible and
have been put out of them [illegible]
created through. [illegible] vessel [illegible]
ed with other varieties, the [illegible]
complicated.
As to the decision of the [illegible]
in other varieties, a vessel must be have [illegible]
their conditions, [illegible]
[illegible]

[illegible]

Veins are [illegible]

[illegible]

[illegible]

[illegible]

it [illegible]

we have to do.

Hernias may [illegible]

es, according to the [illegible]

truded, viz. inguinal, fem[oral] [illegible]

most frequently: thirdly [illegible]

vaginal, rectal, ph[renic] [illegible]

[illegible].

The most important division is into the redu[c]ible, [illegible] and [illegible].

Reducible [illegible] the [illegible] of the protruded [illegible] they can be again returned into the [cavity] of the [abdomen] [illegible].

This variety although attended with [illegible] to [illegible] of the patient [illegible] the reducible may be converted into a strangulated hernia or may become inflamed and [illegible]

[illegible]

[illegible]

[illegible] reducible, not [illegible], &c. [illegible]

also according as it contains intestine or omentum: the former [illegible] in form [illegible] at one opening or another, it [illegible] [illegible]

with sufficient pressure and immediately [illegible] itself, when this pressure is removed [illegible] the patient sneezes, coughs, or performs [illegible] similar act. It is often accompanied with [illegible] tions of disturbed intestinal functions, as sluggish bowels, borborygmi, &c. which symptoms subside when the gut is returned.

[illegible]

hernia. There are two principal indications in accomplishing this, 1st by, to reduce the [illegible] its [illegible] [illegible]. To answer the first indication [illegible]

[illegible]

[illegible]

abdominal muscles as much as possible
make gradual and steady pressure
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] the tumour at its neck.
[illegible]
[illegible] the tumour as instances are on record where
[illegible]
[illegible] this extent proved not injurious the sac
[illegible]
[illegible] the second [illegible]
[illegible] the wound healthy and healing [illegible]
[illegible]
[illegible]
[illegible]
[illegible] the patient. Sometimes the patient [illegible]
[illegible] reducing it when the best directed efforts of the
surgeon fails.
It sometimes happens that the tumour, and
and all the thrust into the abdomen, causes
[illegible]

[illegible]

the patient dies. [illegible]

recommended to cut [illegible]

it, and seize the [illegible] with the fingers [illegible]

we draw it down in its original [illegible]

The second indication is the

by the truss. These instruments are made in many

[illegible]

[illegible] peculiar [illegible]

The object of the [illegible]

[illegible]

we cut all communic[illegible]

general cavity of the [illegible]

The ordinary Steel truss well answers [illegible] purpose

and consists of a pad, strap and spring. The

pad should press on both rings, and [illegible]

canal.

Some surgeons have attempted what is called

the radical cure of [illegible]

[illegible]

of the abdominal viscera to object both at once.

The various means recommended for this purpose are

1st, pressure; 2nd, cauterizing, and [illegible]

-duction of foreign bodies, 5th, the [illegible]
forehead portion of skin into the abdo[illegible]
[illegible] seen trace at one [illegible]
other but at believe have generally [illegible]
[illegible]

[illegible]

An irreducible hernia may [illegible]
conditions of the contents [illegible]
cavity of the abdomen. These hernias are gener-
[illegible] size and of slow [illegible]
contains a considerable quantity of omen-
tum as well as intestine and mesentery.
[illegible] of a hernia may depend [illegible]
[illegible] it, contents or [illegible]
to each other [illegible]
[illegible] the [illegible] of the [illegible]
or mesentery either from simple deposition of
fat or from sarcomatous or other organic chan-
[illegible] instruments. [illegible] the [illegible]
becomes the seat of [illegible] glass [illegible]
[illegible] may remain permanently extravasated.
An irreducible hernia is usually a source of great

inconvenience, and [illegible]

itself, [illegible]

part of all the abdominal viscera [illegible]

enormous tumour in which the [illegible]

This condition gives rise to attacks of [illegible]

which come on after a meal and when the [illegible]

[illegible] the [illegible]

[illegible] to a accompaniment. [illegible]

ing the support naturally given them by the abdominal wall, frequently become engorged [illegible]

[illegible] stipation [illegible]

an incarcerated hernia.

The patient is in considerable [illegible]

bowels becoming strangulated [illegible]

or injured and inflammed by [illegible].

The indications of treatment are two.

1st to prevent Enterhea protrusion and 2nd to convert, if possible, an irreducible into a reducible hernia. [illegible] of first

[illegible]

The bowels became [illegible] incarcerated
a given purpose. The second [illegible]
be merely accomplish [illegible] in
would be [illegible] [illegible]
It consisted in [illegible] the patient [illegible]
most for several weeks and [illegible]
ate him by injections, and by [illegible]
the bulk of the tumour has been in some
instances so reduced as to slip readily into
the belly. This practice was, I believe, first
suggested by [illegible] the patient [illegible]
of rid of an irreducible hernia after he
suffered from fever or some other wasting
[illegible].

[illegible]

The wood is [illegible]
and [illegible]
[illegible] well [illegible]
The next [illegible]

[illegible]

[illegible] of an inch by running up the sharp edge of the knife. The intestine or omentum must then [illegible]

[illegible]

to create great irritation which would [illegible] prove as fatal as the stricture. Now the wound may be brought together by two or three stitches and a few [illegible] of adhesive plaster. About the fourth day the stitches may be removed and water dressings applied. If inflammation or suppuration should occur poultices may be applied. The patient should keep his bed [illegible]

[illegible] and we may administer an enema [illegible]

[illegible] exclusively operations for the rest should be [illegible] [illegible] articles for three or four years [illegible]

This can only be effected when the stricture exists external to the sac as at the kidneys opening or and in the another case. The great advantage since is that the sac will not be molested and thus the recurrence of scrotulitis is avoided and [illegible] be proved that in every instance the peril is results from introducing into the sac [illegible] many cases inflammation exists before the sac is opened however it would not be fair to argue that the necessary incision does not increase it. The objections to the operation are that, first, the stricture may exist within the sac and thus the intestine be returned unrelieved, second, the gut may be mortified and not being seen may be returned. The operation without opening the sac may be performed in all cases but much more readily in some than in others, it is especially [illegible]

[illegible], the [illegible] [illegible] out of ten, [illegible] [illegible] [illegible] [illegible] [illegible] opened.

The [illegible] of strangulated hernia is to subdue peritonitis if that occurs or exists. Peritonitis may be occasioned or at all events greatly increased by the necessary incision or it may exist before the operation is performed. It may be either acute or chronic. Acute peritonitis is the one that is generally met [illegible] [illegible], by coughing, by sneezing and the like: the patient cannot sit up nor usually lie on his side but remains always on his back, in which position the pressure of the viscera is the least possible; the breathing is entirely thoracic: the pulse is sometimes strong and quick but most frequently small and intermittent: the bowels are constipated and tympanitis soon comes on.

[illegible] [illegible] be strongly antiphlogistic, we take

treatment was [illegible]
(and blister; turpentine
the hypnotics very effective.
Chronic peritonitis chiefly

of the bladder at least [illegible]

most an artificial anus never undergoes stercoraceous recovery but in all cases necessitates an artificial [illegible]
The operation has for its object the establishment [illegible]
[illegible] and [illegible] [illegible]
[illegible] lateral, serrated, bladed instrument. One of the blades of this instrument is introduced into the [illegible]
Incision is made by a screw in the handle.
In this mode the stone is made to slough.
[illegible]

Dr Physick passed a curved needle armed with a ligature, completely through the scrotum like a seton, the needle entering one orifice and emerging through the other. The extremities of the [illegible] the peritoneal surfaces were gradually at the [illegible]

[illegible]
[illegible] the [illegible]
[illegible] was then divided
[illegible]
[illegible]
[illegible] it be
[illegible] symmetric [illegible]
nine [illegible]
[illegible]
[illegible] the mass is accomplished by
cutting it off at a level with
[illegible] the bleeding nose
[illegible] commenced a [illegible]
[illegible] and [illegible]
[illegible] of the [illegible] [illegible] are
and very narrow.
These, gentlemen, are [illegible]
drawn from our instruction
two courses at the [illegible]
nothing more to add
[illegible] when [illegible]
[illegible] their just [illegible]

An Inaugural dissertation on the treatment of Strangulated Hernia

Submitted to the examination of the Provost, Regents and Faculty of Physic of the University of Maryland for the Degree of Doctor of Medecine

by

Otho F. Scheldt
of Baltimore Maryland

Treatment of Strangulated Hernia.

The treatment of strangulated hernia varies according to the nature of the case. In general, it may be said that our object is to effect reduction as speedily as possible; saving structure, by favoring decline of the inflammatory action; restoring the normal passage of the intestinal contents; and arresting the disastrous progress of constitutional disturbance. But it is not always good practice to have recourse to the manipulations for reduction immediately; and, in regard to this practical point, the cases may be divided into two great classes; those which

are preceded by inflammatory action in the hernia, and those in which this action follows on constriction otherwise produced. The latter, doubtless, are the majority. In the former, it is the natural and proper course of procedure to remove the cause of constriction, if possible, in the first instance, provided the case is chronic enough to admit of this; leeches are applied, and other suitable antiphlogistics are enforced; and when by such means, the size of the tumor has diminished, and the parts have acquired a better tolerance of manipulation, then taxis is to be applied, without the risk of doing harm, and with a good prospect of proving successfull. The inflammatory action has caused constriction; remove the cause, and the constriction is easily dealt with. But, in the other class of cases, the state of matters is reversed. The constriction has caused inflammation in the part; and only after removal of the former, can we—

expect to cope successfully with the latter.
In employing leeches for the relief of hernia, it is not well to apply them to the tumor itself, but to its immediate vicinity; otherwise, the slipperiness which is produced, by oozing of blood, may interfere seriously with the manipulations of the taxis. In applying the taxis, the patient is placed in the recumbent posture, with the limbs and trunk so arranged as to relax the abdominal muscles to the full; it is well, also, to see that the bladder is empty, and that no bandage, belt, or other outward constriction is affecting the abdomen. The tumor is then grasped with the hands, firmly, yet cautiously; and while with one hand general pressure is made on the bulk and body of the tumor, forcing it in upon itself, as it were, and at the same time pushing it back in the direction where it has been protruded, a kneading or pinching movement is made on the neck

of the tumor by the fingers of the other hand, so as to disentangle and free the part most compacted and compressed. And this is steadily persevered in, for some time, provided the patient do not complain greatly of aggravation of pain and general uneasiness. Our wish is to push the hernial contents back, not in mass, but in detail; those going first which were last protruded. The patient, if not chloroformed, is kept in conversation, to prevent him from straining his abdominal muscles in involuntary opposition to the operator. There is energy, yet no violence of force in the pressure; and it is patiently and steadily kept up, yet not continued too long; that is not after reasonable hope of its success has passed, and when its continuance must inevitably tend to serious aggravation in the inflamed parts. Sometimes it is not applicable at all; when, for example, the case is acute, and has made great

progress ere assistance is called; when the parts are very intolerant of pressure as to convey to the practised hand and mind the apprehension of the parts giving way by rupture under an attempted taxis; also, when we are satisfied that inflammatory action has already gone so far as to render loss of substance, either by ulceration or by sloughing, inevitable in the constricted parts. In inguinal hernia the proper direction, for returning the protruded parts, is obliquely upwards and outwards, in the direction of the inguinal canal, then backwards into the cavity of the abdomen. It must be remembered, that in old and large hernias of long standing, the canal becomes shortened as well as more direct, the two rings coming nearly opposite to each other. In femoral hernia the direction is first downwards, then backwards, and upwards into the abdomen.

Failing in the well applied taxis, we naturally look for Auxiliaries of which there are a great number. 1st Chloroform, this is one of the most valuable agents that we possess; it relaxes the muscular system completely, and relieves the patient from all pain; it should be administered till it relaxes the muscular system, then the taxis should be applied. It does not aggravate the collapse, quickly passing off, and leaving no unpleasant trace behind. 2d Venesection is used in but few cases; in the young and robust, of inflammatory tendency, tolerant of loss of blood; with a tight strangulation yet recent; marked signs of acute action in the parts, and the constitutional symptoms still evincing a sthenic type. In such cases, bloodletting one copious and rapid abstraction from the arm is of use, by both arresting the advancing action; and at the same time causing

complete prostration of the muscular system.
3d Warm bath has similar tendencies; and is obviously more generally applicable, inducing temporary depression; gaining the desired end, yet saving the system from actual loss. If there be time, this is one of the best means of assisting the Lavis. The patient is placed recumbent in the bath, with the abdominal parietes relaxed by posture; and when faintness is beginning to be complained of, the Lavis is resolutely applied. It may fail; but the opportunity by the bath is not yet over. Let the patient be replaced in bed; in a few minutes he will be found deluged in perspiration, with a muscular system more prostrate than before; and then the Lavis is most likely to succeed. 4th Emetics are also very useful, Antimony, for instance, by its sedative effect on the vascular system; and emetics properties tending very much to relax the muscular

system. They are generally used in conjunction with the Warm bath, both acting together producing great muscular relaxation; and thereby favoring the reduction of the tumor.
5th Cold is sometimes of the greatest service. Applied indiscriminately, it will do harm; but limit its use to those cases which are slow in their progress, in which the signs of obstruction precede those of inflammatory action, and in which the inflammatory process affecting the tumor is not only slight, but scarcely begun—then the effect is often most favorable. The gaseous contents being condensed, bulk diminished, and space is gained; and perhaps, by puckering the coverings of the tumor, some reductive pressure is exerted on the tumor. But act as it may, there is no doubt that the local application of cold tend wonderfully to assist the taxis, in the class of cases just described. It may be applied by pouring a stream

of cold water upon the tumor; or by applying a bladder filled with pounded Ice to the part. 6th Enemata are also very usefull in unloading the lower bowels of their contents, both solid and gaseous; and so making room within the abdominal cavity for the reception of the extruded parts. And experiment also would lead us to suppose that they have a mechanical tendency to extricate, by exciting traction, from within, on the protruded bowel. They should be of a simple and bland character and freely and largely administered. The Tobacco enemata have been recommended by some writers; they are however very dangerous and should be used with caution if administered, as they prostrate the powers of life. 7th Posture, it may rather be considered as a part of the taxis, than an auxillary to it; and it must be invariably attended to. It necessarily varies, in details, according to the site of the

protrusion. Its main object is ever kindness; to relax the parts through which reduction has to be made. In both inguinal and femoral hernia the pelvis should be elevated, and the thighs flexed upon the pelvis, so as to relax the abdominal muscles. 8th There is another mode of reducing strangulated hernia; by spreading on leather some adhesive plaster, and applying it to the tumor; having fastened some cords to it; by drawing upon them the abdominal parieties are raised, from the protruded parts; then by manipulating with the fingers, the bowel is sometimes returned within the cavity of the abdomen. The most available, and generally used of these auxiliaries are: Chloroform, venesection, cold, warm bath. If the taxis is to succeed, a yeadding of the tumor is felt beneath the hands, the contents are receding into the

cavity of the abdomen; then a gurgling noise is heard, denoting replacement of the gaseous contents, and is always a welcome sound, After the parts have been reduced, a truss, or suitable compress and bandage is instantly applied; the patient is confined to bed, in the recumbent posture; and the antiphlogistic regimen is strictly enforced; after some hours, an enema may be given, if the bowels have not acted spontaneously; but not till after many hours should even the simplest purge be given by the mouth, it being well ascertained that the loop of bowel included in the stricture remains long in a paralytic state, and incapable of obeying the peristaltic motion of the bowels. Should peritonitic symptoms threaten, the usual antiphlogistic treatment must be had recourse to early.

Not unfrequently, after tight constriction, discharge of blood takes place per anum, this being furnished by the mucous coat of the lately strangled part.

The operation for strangulated hernia is unhesitatingly to be had recourse to, so soon as the taxis, with such auxiliary means as seem advisable, has been fairly tried, without success. It has been well ascertained, that in regard to this operation error is more frequent on the side of delay than of precipitancy. Two circumstances demand its instant performance; a conviction that by no other means, than by the edge of the knife directly applied, can the abdominal outlet be so enlarged as to relieve constriction and admit of replacement; also a conviction that the inflammation in the part, has gone so far, that either

ulceration or sloughing is inevitable in the protruded parts. In the one case, we operate to relieve the stricture and effect replacement, hoping to arrest inflammatory action; in the other, we operate to relieve the stricture, and, leaving the hernia unreduced, prevent fatal extravasation of the intestinal contents within the cavity of the abdomen; hoping to limit the inflammatory action to the implicated parts. The danger of strangulation is twofold; formidable disturbance of the system, and untoward inflammatory progress in the tumors. Both dangers advance, in most cases, with rapidity. And if we wish to meet them successfully, the measures of relief must be both suitable and early. Large herniae are more hopeful of reduction than the small;

the inguinal protrusions are more hopeful than the femoral. The instruments necessary for the operation of strangulated hernia are, a scalpel, a director, and a curved, probe-pointed bistoury, with other apparatus, and assistants such as are usually required for capital operations. The seat of stricture is exposed by careful and regular dissection; the incisions varying in their plan, according to the kind of tumor. Having cautiously divided the integuments and fascial envelops, the sac is exposed, clear and glistening, resembling very much the peritoneal coat of the bowel; and there may be some difficulty in ascertaining whether it is the sac or bowel. By pinching it up, so as to show the bowel separate beneath; or by observing serum, fat, or a portion of omentum between, we arrive at a sure diagnosis.

The sac is pinched up by the forceps, choosing a part where serum or fat interposes between it and the bowel and that will generally be towards the fundus of a small hernia. By the knife's edge, held horizontally, the raised fold is divided. Through this aperture the point of the director is introduced; and, by the point of the knife, carried along the groove of the director, the opening is made to such an extent as may be advisable. However large the hernia, the opening of the sac need not be of greater extent than what is merely sufficient for ascertaining the state of the contents, and permitting the finger to reach the site of stricture. The point of the forefinger having been passed up to the abdominal aperture, the bowel having been drawn downwards,

before, to prevent a fold of it, from being wounded by the knife, the probe-pointed bistoury is slid flatly along it; and, by the point's edge, pressed upon the stricture; this is divided to the proper extent. Then if the hernial contents, are sound and reducible, are replaced gently, portion by portion - the last protruded first. Recent and tender adhesions may be gently broken up with the finger, or touched with the edge of the knife; but consolidated adhesions, if at all extensive, render the parts irreducible they should not be interfered with. When there is any considerable portion of omentum in the sac, it should be carefully examined, to ascertain whether or not it conceals perhaps strangles a knuckle of intestine. If the sac, does not adhere, it is replaced as well as its

contents, but not along with them; for, reduction is found to be facilitated by an assistants finger steadying and stretching the sac, while the contents are pushed upwards on its smooth surface. Reduction having been accomplished, the wound is brought together, and suitable pressure applied. The wound should not be completely closed by suture; for union by adhesion is not desirable, otherwise danger might occur from the secretions in the deep wound, finding their way into the peritoneal cavity. They should be allowed a free outward drain. When hernia is irreducible, we content ourselves with division of the stricture. If the contents are sound, the external wound is approximated with a view to adhesion. If the contents are found gangrenous, or near thereto, the wound is left open, to premit free discharge of the feculent contents.

If, on exposing the contents of a reducible hernia, the bowel be found merely reddened or conjested; ruby colored, it may be; perhaps spotted by points of ecchymosis, or showing one or more vesicles of the peritoneal coat, it is reduced unhesitatingly. If showing signs of plastic exudation on its surface, it may be still reduced; no structural change has taken place but what may be recovered from. But if the bowel be dark-purple at some part, greenish at another, and ash colored at a third, and evidently fast passing into gangreene, under no circumstances is it to be reduced, else fatal extravasation must ensue. And omentum be found dark-red, emphysematous, and with its venous blood coagulated, it to must be left to slough in its outward site; in either case, the stricture must be divided, as if it were fit for reduction.

In the case of gangrened bowel, it is also well to incise the sloughing part, so as to relieve the copious feculent evacuation. Afterwards, the treatment must be directed for artificial anus. In the case of gangrenous omentum; we may cut off the gangrened part, having previously ascertained that there is no portion of bowel within the mass, secure the vessels with ligatures, and keep them at the wound, until they come away. After successful reduction, by operation, the same treatment is required as in the case of simple taxis; rest; recumbency; antiphlogistic regimen; and other antiphlogistics, if inflammatory symptoms supervene; hydrocyanic acid or creosote, if the stomach continue irritable; and bland enemata; but no purge by the mouth. After the operation, the greatest attention must be paid,

for some days, to prevent reproduction of descent; by keeping the compress accurately applied, and avoiding the ordinary exciting causes. Should reprolapsus take place, by coughing, restlessness, or imprudence of the patient; the dressings must be undone, and replacement effected. When the sac remains unreduced, simulation of redescent is apt to take place, by serous accumulation within the sac, especially if the wound is accurately closed; but is easily detected and remedied, on opening the wound. After cicatrization, a well made truss must be worn, for it sometimes happens that the operation does not effect a radical cure.

Otho F. Scheldt.

An Inaugural Dissertation
on
Pneumonia
Submitted to the examination
of
The Provosed Regents of the Faculty of Physic
of the
University of Maryland
for
The degree of Doctor of Medicine
by
Alexander D. Hamilton

Pneumonia

Pneumonia is inflammation of the parenchymatous structure of the lungs

Inflammation may occur in different parts of the lungs, and may occupy both lungs to a considerable extent, or it may embrace the whole of one lung, or one lobe of either but most frequently one of the lobes of the right. Such a case is denominated Lobar Pneumonia.
There are cases in which small portions of the lobes become inflamed with a healthy portion intervening between the diseased portions this form of the disease is termed Lobular Pneumonia.
Though the disease is usually confined

to one lung, yet occasionally both are affected then the disease is double Pneumonia.

Inflammation of the Pleura, is very often set-up in this disease, or it may commence with inflammation being produced in that membrane, previous to the attack of Pneumonia, which would make the disease a complicated one, and also would endanger the life of the patient more than it would do if it were confined to but one of the viscera. In this case, where it is associated with the Pleura, it is Pleuro, Pneumonia

When this disease prostrates the patient and assumes a low form with such symptoms as pain dyspnoea cough hot and dry skin covered with petechiæ

pulse weak, face flushed, tongue covered with a dark brown fur the teeth and gums having a large collection of dark bordes on them (lips) called typhoid Pneumonia.

Inflammation attacking the vesicles, the parenchyma remaining untouched by the disease, it is vesicular Pneumonia. When there is derangement of the liver or bilious fever associated with it, it is known as Bilious Pneumonia. The disease may be acute or chronic.

Stages of Pneumonia

Dr Laennec made three distinct stages in Pneumonia which stages have been generally adopted by succeeding pathologists. The first stage that of engorgement or congestion, is that in which

the diseased part of the lung is of a deep red colour. Precipitates when pressed between the fingers and retains the impression made by them, when divided by a scalpel it pours out a quantity of blood and frothy serum; it is increased in weight, but notwithstanding it still floats in water; although the air cells are filled they still allow the air to penetrate through them in a measure.

Second Stage or that of Red Hepatization. This stage is marked by a reddish brown colour. The inflamed lung does not precipitate under pressure, its volume is so much increased, that it readily sinks in water, and its diminution of cohesion is

much more than in the first stage. This grayish colour which is sometimes observed owes its existance to an intermixture of particles of black, coloured pulmonary matter. I think, that the hepatized lung varies according to the quantity of blood left in the lung if much it will be very much reddened, if little, pinkish brown or reddish gray, if mixed with black pulmonary matter, a granite like appearance. The lung becomes so soft in this the second stage, that the finger may pass through the parenchyma without the slightest resistance. If the lung is put into at this time, it bears the resemblance to liver; hence Laennec and

after him most other writers had applied to this altered condition of the lung the term Hepatization. Pressing a piece of the diseased lung between the fingers a reddish brown, liquid is poured out and it is much thicker, but, has not so much foam and is less in quantity than in the first stage.

Third Stage or that of gray Hepatization. This consists in the conversion of the semi solid particles of lymph or blood which make up the red hepatization into a liquid pus, this suppuration is almost always diffused in the form of purulent effusion, but is rarely ever known to take the form of a distinct abscess. The lung is much softer than

in the second stage, so much more so that when pressure is made upon it by the fingers it dissolves into a purulent fluid and only a few traces of solid tissue remain. There is another stage of Pneumonia, although it rarely, if ever, occurs that is gangrene of the lungs, or the fourth stage. It arises pretty generally, as Dr. Williams says, from those noxious gasses, which tend directly to destroy the vitality of the tissue of the lung."

Symptoms & Causes &c

"The disease commences very frequently with a chill, and sometimes a very decided one, followed by cough, thirst & shooting pain in the side, or sim-

the back part of the chest. When the disease becomes more fully developed, it assumes symptoms such as fever, sometimes very severe, but most frequently it comes on gradually, respiration hurried, pain in some part of the chest, cough, expectoration scanty, and often mixed with blood, depression of strength, loss of appetite. There are many cases of Pneumonia in which some of these symptoms are absent; for instance says, Dr. Stokes I have known cough in this disease to be absent for several days. Viscid and rusty coloured expectoration is properly one of the characteristic symptoms of the disease and sometimes indicates its

existance when the physical signs fail. In persons greatly advanced in life the disease is wonderfully modified in point of severity, there is no sharpe pain, and no cough, little or no expectoration. In order to understand & know how to detect, Pneumonia one must be skilled in the arte of physical Exploration. It is absolutely necessary to know the healthy sound from the unhealthy; this is one of the most certain signs of the disease. Place the patient upright in bed place the ear to the diseased side, then request the patient to count, one, two, three; also I place the ear to the healthy side, and the,

difference between the two is so very marked; yes, with these two guides you might almost with certainty pronounce the disease, Pneumonia. A very certain symptom however, is the pungent heat of the skin.

Infantile Pneumonia

Symptoms

While a healthy infant is sleeping in the arms of its mother the mouth being gently opened, it will be observed that the tongue rests upon the roof of the mouth and the respirations are carried on through the nares. This imparts to the tongue its preternatural dryness, and the same inability to respire comfortably through

the mares causes the child to suck by starts. The infant seizes the breast, sucks for a moment eagerly then suddenly drops the nipple and in many instances begins to cry. As far as regards physical signs of infantile pneumonia, it may be said that the mucous rhonchus is noticed when catarrh has preceded the pneumonia. It is very difficult to tell whether they have pain or not. Sometimes the disease commences with fever, hard, dry cough, respiration hurried there is no mucus, if there is the child cannot spit it up. When the disease becomes more fully developed the symptoms are the same, only more severe; the cough is

very painful, the pulse ranges from 120 to 180 in a minute but usually not regular. The respirations vary from 35 to over a hundred. If the disease goes beyond this, the patient becomes exhausted and the powers of life begin to fail, cough very weak, the voice of the little sufferer seems to deny to him its former function the pulse fails and becomes very small, weak, and feeble finally the extremities become cold, and the little patient dies in a state of drowsiness and stupor. Should the disease take a favourable turn, those violent symptoms subside the patient gradually begins to recover.

Bilious Pneumonia

It is stated by some authors that

this kind of Pneumonia is more or less common, but others differ. This disease may be detected by the Stethescope. The symptoms and physical signs of the diseased lung, however do not undergo much change, therefore I do not deem it necessary to repeat them, the peculiarities are those derived from the miasmatic complications. Symptoms begins with a chill, usually followed by hot skin, headache, yellow hue of the eyes, a pale yellowish white coat on the tongue, nausea and a deep coloured yellowish brown urine, fever usually remittent. This disease terminates favourably, though sometimes it proves fatal, owing to the quantity of the miasmatic poison inhaled.

Typhoid Pneumonia

In Typhoid Pneumonia the local symptoms do not differ from the ordinary form of the disease. There is less severity in the pain and cough. In the expectoration there is a marked difference, it consists of a mixture of pus and blood. In all stages it is less viscid and usually more copious than in ordinary Pneumonia; not unfrequently says Dr. Stokes, it is brown even blackish, and sometimes fetid. The pulse is weak, in fact the symptoms generally are those of depression, in the more advanced stages of the disease, the pulse becomes small and feeble, the skin is hot and dry or cold & clammy, the face is dark and dusky, the tongue

covered with a brownish fur, also the teeth with dark borders, and even sometimes the lips are covered with this borders, the feces are dark, and the patient becomes exhausted, finally it closes with a stupor or low delirium, Recovery is very slow, though it rarely ever takes place

"

Diagnosis

There are some diseases with which Pneumonia can be confounded such as Bronchitis Pleurisy an certain stages Phthisis

"

Prognosis

In cases of common lobar Pneumonia with proper treatment, the patient generally recovers. Lobular Pneumonia is much more dangerous than

the first-form of the disease though it generally submits to a proper treatment, Bilious and Typhoid Pneumonia are very dangerous. Though I have seen them yield very happily to remedies suitable to the disease and properly applied. Causes of Pneumonia may be considered, first under the two heads of those external and those connected with the individual himself. The first include climate season and atmospherical effects in general. But I believe the immediate and exciting causes are those of transition from a mild to a cold medium, when the body is heated, especially in a state of prespiration.

Treatment of Pneumonia

In patients whose constitutions are

hardy, and of plethoric habits, bleeding is the most useful remedy, this must not be neglected, that is in the first stages of the of the disease, though it has been proved to us that it is useful even in the suppurative stage, as to the number of times the lancet should be used I think the pulse and the constitution are the best guides, the next remedy that is most beneficial in this disease is Tartar emetic this should be given in small doses, from the tenth to the third of a grain every hour or two hours and increased if necessary. Generally previous to the administration of the Tartar emetic, the bowels should be opened with some active cathartic, The rule to guide us in antimonial practice, is that the usefulness of the antimonial treatment depends on, or is

favoured by the inflamatory character of the fever, the absence of complication with other diseases, the early stages of the disease, the fact of the patient having borne bleeding well and the firmness of the coagulum, the more the disease presents these characters, the greater will be the likelihood of the Tartar emetic acting favourably. But in Typhoid secondary and complicated cases; in those where the powers of life have been nearly exhausted previously, where bleeding cannot be used with any boldness, and where stimulents are required, there the administration of antimony in free doses would be hazardous. The mercurial treatment is always preferable in those cases. If the patient should continue, general bleeding having been practised and carried as far as the patient will

bear it, recourse must be had to local depletion over the part of the diseased lungs large cataplasms are highly beneficial, but we should be very careful with them, as the patient is liable to take a fresh cold; on the subsidence of the pulmonary inflamation and of the violent actions of the heart and the commencement of nervous symptoms and wakefulness; Dovers powder in doses of three grains every two or three hours will be of much service. I do not deem it necessary to go farther with the treatment of Common Pneumonia

Lobular or Infantile Pneumonia

There is nothing so peculiar in this form of the disease, as to call for a different set of remedies, but reference must be ~~must be~~ had especially to the origin of the disease and the strength of the patient. The age of the patient requires our attention also

In Infants leeches are the best substitute for the lancet: Calomel is highly recommended in this disease, in small doses, with proper treatment & the little patient sometimes recovers ||.

Bilious Pneumonia

Bleeding in bilious Pneumonia is not quite so well borne as in the common form of the disease. Calomel is much used as a alterative and generally, in the beginning of the disease. The proper plan to adopt in the early part of the disease is to place the patient upright & open a vein put the finger on the pulse, and when it begins to flag, stop the flow. From ten to sixteen ounces may be taken in a plethoric person, Cups leeches & Cataplasms are very useful. This depletion may be carried farther, it depends upon the constitution symptoms &c. After a thorough evacuation

of the alimentary canal, the paroxysms may be stopped with quinine or some other remedy. From twelve to fifteen grains given between the paroxysms in divided doses, are generally sufficient; In low cases it sometimes becomes necessary to stimulate, but it depends upon the symptoms generally, as above stated "

Typhoid Pneumonia

Depletory means in this form of the disease is very hazardous practice if pushed too far in fact is so very often fatal. But I believe that, in some cases of strong constitutions, plethoric habits, the loss of a little blood is highly beneficial. Leaching and cupping are generally the usual modes in which depletion is effected. The alimentary is to be evacuated with some cathartic such as calomel rhubarb &c. Then put the patient on calomel combined with opium Ipecac

in doses of half a grain of opium with 2 grains Calomel kept up until the gums become affected. Dr Stokes treatment of Typhoid Pneumonia. First general blood letting is to be used with extreme caution; Second the mercurial is to be generally substituted for the antimonial treatment. Third counter irritation may be employed at an early period; Fourthly the vital forces are to be carefully supported. Fifthly gastro intestinal disease frequently complicates the pneumonia. Close attention must be paid to the abdominal viscera. Sixth stimulants are to be used with great boldness at an early period. Oil of turpentine very freely given is also serviceable, and may be considered as especially applicable where there is much blood discharged from the lungs. Diet should be very nutritious, and sometimes stimulating.

Alexander D. Hamilton
West Kirby R.A.C.
Mo A

An Inaugural Dissertation
on
Apoplexy
Submitted to the examination
of
the Provost Regents of the Medical Faculty
of the
University of Maryland
for
the degree of Doctor of medicine

William Thomas Price
Charles County
Maryland

Gentlemen;

I am well aware that you can form a correct idea of the great embarrassment which an inexperienced student feels upon offering his first productions as a thesis to be criticised by so learned a body of professional men.

It is upon this that your decision greatly depends; whether you will deem it right to allow the author to cast himself among his brethren, and partake of the pleasures and trials which more or less attend this profession; or cast him aside upon the wide and expansive world without friends to console him. It must be a bitter feeling to a student who has been toiling for three long years, casting aside all

of the enjoyments of this wicked world in order that he may obtain the knowledge which his profession requires of him, to be also rejected.

Gentlemen you know that the happiness of a Student of medicine depends in a great degree upon whether he graduates or not; and if he should be so unfortunate as to be rejected, that distasteful and disagreeable word, rejected is branded upon his forea never, never, to be eradicated. And as this is a task which you all lead to perform just call to minds your own feelings upon the occasion and have some compassion upon a fright'ned student.

Gentlemen.

After for a long time looking over the numberless diseases to which our frail nature is more or less subjected I have at last determined upon a subject as a fit subject upon which I intend to write my thesis. I will not even if I were able enter into the theory and mamatic of this malady but will only subject to your consideration the general outlines which characterize the different stages of this disease, with the pathological lesions attending each together with the causes both exciting and predisposing; the symptoms the treatment necessary during the paroxysms and that which is denominated the prophylactic.

In the first place I will

commence the consideration of the predisposing causes. Various causes have been assigned as predisposing to apoplexy; such as hereditary transmission by conformation; this by some has been considered as well grounded. Advanced life seems to increase amongst these causes. The transmission of gout, the suppression of accustomed evacuations together with the rebelling of certain eruptive diseases; have always been considered, and with propriety, as ranking among these causes.

The sudden alterations in the atmospheric temperature such as moisture and cold both exercise their influence upon the bodily mechanism. In speaking of these causes it is well to have some reference to the physical conformation

of body which increase as it is prone to apoplexy. Persons with large heads short necks red and turgid faces are generally looked upon as doomed victims to this disease; though persons of an obesite formation of body, often fall victims to apoplexy; And even if there is nothing predisposing in their habit or the habits of these patients often make them liable to be thus attacked. It has been also thought by some that Bright's disease of the kidneys has been a cause of apoplexy. Weakening of the cerebral blood vessels, from any cause whatever is a very fruitful and common progenitor of fatal attacks; And diseases of the chest very materially influence the

cerebral circulation. And all large observation of authors concerning the habits of those who are affected by apoplexy leaves no room for doubting that intemperance often paves the way for its invasion. The continued abuse of ardent spirits lays the foundation of many of those morbid conditions of the sanguiferous system and the viscera of which we are now speaking. Sedentary habits with high living has been also invoked to produce the disease by generating plethora. It is a highly interesting question what is the state of the brain which gives rise to apoplectic effusion. There can be little doubt that organic changes in the coats of the blood-vessels such, for example, as atheromatous

deposits of fatty degeneration, may so far lessen their power of resistance as to lead to rupture upon the application of any unusual pressure. These, perhaps, in part, the peculiar liability of old persons to the disease. They are more subject to apoplexy than women.

The exciting causes. The immediate or exciting causes of apoplexy are very numerous. It may be added that the attack not unfrequently occurs as the result of previous disease of the brain or its vessels, without any obvious exciting cause. Thus, it often happens that the patient is attacked while sitting, standing, or quietly walking, without the least unusual physical effort, and without any mental excitement or disturbance.

Another very dangerous cause is plainly illustrated whenever the rapid flow of blood from the congested blood vessels of the head is suddenly obstructed.

By the upper pipe of respiration the transit of blood through the lungs is impeded, and the check is felt through the pulmonary arteries right ventricle of the heart, the great veins and blood vessels of the brain; and this effect is increased when at the same time any muscular action is called into play.

Under this variety of causes come a number of physiological acts which, however harmless in a healthy person, do not exist in a person who is predisposed to apoplexy, without being attended

with great danger. Look for instance at young children who are labouring to expell the viscid mucous from their bronchial tubes during the spasmodic cough in hooping cough and you will see the marked condition of the cerebral blood vessels; bearing liquid and expressive of great muscular exertion.

Straining at stool and a variety of other bodily acts too tedious and numerous to mention predispose to attacks in the same manner and upon the same physiological principles.

I have finished the consideration of the causes.

The subject of our inquiry to be treated of is the different varieties of apoplexy.

Dr Abercrombie together with others has given to that form of apoplexy which distinguishes but leaves no traces behind it, the name of simple or serious apoplexy. Here the symptoms that characterize this form of the disease are first, the patient falls down suddenly deprived of sense and motion and lies like one in a deep sleep. his face is generally flushed; his breathing is stertorous, his pulse is full but not frequent sometimes below the natural standard. It is very rare that we meet with convulsions in these cases. Some die in a short time others again die after

a longer interval; and upon examination after death nothing is found extravasated within the cranium, or at most a small quantity of serous effusion.

The next variety is known as sanguineous or a more appropriate name would be cerebral hemorrhage.

This form of the disease begins with a sudden pain in the head. The patient becomes pale and usually vomits, and sometimes falls in a state of syncope, with a bloated and cold skin, a feeble and weak pulse. This form of the disease is pretty generally accompanied with convulsions. Often the attack is associated with a slight and transient confusion only, and the patient

will recover to sensibility; but the headache does not leave him, and after this appearance recovery progresses, for a few moments; the patient becomes heavy - incoherent forgetfull and sinks into a state of coma from which he never arises. In some instances paralysis occurs but generally there is no pain observed.

The morbid appearances found after death, shows extensive extravasation of blood. And the symptoms depend no doubt upon the giving away of some one of the cerebral blood vessels; & the moment that the vessel is ruptured a shock is produce upon the brain; and a temporary derangement of its function is produced

but this passes off; then the circulation goes on until such a quantity of blood has escaped as to produce coma. The prognosis of this variety is nearly always fatal.

The third and last form of this disease, is that known by the name of paralytic or serous apoplexy. This kind of the disease is characterized by the sudden loss of power on one side, and loss of speech without the deprivation of consciousness. The symptoms which are met with in this kind of attack are the patient is sensible listens to and comprehends your questions, answers them as well as he is able either by words or gestures. Sometimes the hemiplegia passes gradually into apoplexy

In the onset of these cases there is not always complete hemiplegia; sometimes one of the upper extremities or some one of the lower, is the first to loose their power. Now the morbid lesions found after death by this form of apoplexy is extravasation of blood to a moderate amount and then on the other hand nothing is found to account for the presence of such symptoms; or more probably you will find a small quantity of serous effusion only.

The prognosis of this variety is death. You will not find that all cases of apoplexy adhere strictly to one or the other of these three modes of attack but they do oftener than otherwise.

Treatment. The treatment in this as in many of its kindred diseases is very inefficacious. At one time we may exert all of our skill in the cure of this fatal complaint, and it will be to no avail; when on the other hand by the bold and heroic use of the lancet together with other remedies we may be able to extricate our suffering companion from the jaws of impending death and once more restore him to the pleasant enjoyment of health. When we are summoned to a patient who is deemed to be labouring under the effects of apoplexy, whose condition is characterized by a full ~~hard~~ and strong pulse, but not a frequent one;

his face, flushed, his breathing stertorous and laborious, the veins about his head turgid and throbbing like whipcords. There is nothing so calculated to repay the student for his many years toil, as the timely and judicious use of the lancet accompanied with bleeding the cupping glasses.

We may bleed but we must know when and how to use this master piece in our treatment.

In the first place if our patient is robust, young and plethoric, we may place him in the semi recumbent posture, and after having removed all garments from about his person in particular from his head and neck which

may seem in any way to comprehend him; the may generate a full and free arterial pulse but a sufficient remoment of blood flow as will produce a decided influence upon the general circulation.

If the tendency be to death by coma as it often is in apoplexy then this plan of treatment followed by evacuating remedies will be all that is requisite; but if the tendency be to death by syncope, you must withhold the lancet and have recourse to stimulating and restorative measures.

You may sometimes see the head and face turgid, when at the same time the pulse

is small, but this is no criterion by which you are to judge whether or not it is judicious to abstract blood; for this state of the pulse may depend upon some organic disease of the heart.

You must likewise take into consideration the age of your patient. If he or she is old and feeble of course you would not be so heroic in the abstraction of blood, and why; simply, because the recuperative powers of these old persons are more or less subjective to torpitude. And on the other hand if your patient has a cold and bloodless skin together with a feeble and flickering pulse, you would not bleed, and why; because

you would either kill your patient, or determine the accession of palsy.

What do we gain by such bold and heroic use of the lancet? Why in the first place we diminish the stress of blood upon the cerebral blood vessels and so tend to put a stop to the hemorrhage, and we also lessen the hazard to inflammation which might be caused by injury close to the brain by the laceration of its textures. And in the second place we bring the system to the most favourable condition for the absorption of the extravasated blood. The next remedies to be used are purgatives, and the best of these agents is calomel

followed by a black dose as a drop or two of croton oil. Dr Abercrombie suggests, if deglutition is painful it may be introduced into the stomach by means of a gum elastic tube, but I should think that this would more or less irritate the fauces. We may also have recourse to enemata, a strong enemata of turpentine suspended in the yolk of an egg will often produce its desired effect. In conjunction with bleeding and purgatives, blisters placed here or upon the head, and neck, together with cold applied to the head either by pouring cold water upon the head and shoulders from a height, or by applying ice in a bladder to the shaven

scalp. Emetics have been recommended by some, but this is a delicate ground according as it is well or ill timed. If there is already extravasation of blood or even plethora capitis, the act of vomiting will most assuredly increase the danger. Emetics may arouse the nervous system when the patient is cold and fainting; yet this can never be considered as a legitimate purpose of emetics.

Somnus for the treatment during the paroxysm.

The remaining part of our treatment to be considered is the prophylactic or those remedies by which we are able to ward off an attack of this disease. By glancing in a few moments at the causes of

this disease it will be seen that
Bodily conformation, habits, period
of life, and temperament in man
are or all contribute to the
production of apoplexy. Each
of these conditions has some modifying
influence either upon the formation
or distribution of the blood, so
as to determine it in an unequal
or undue manner to the brain,
consequently to be useful to
a constitution liable from either
or all of these causes, we must
do all that is within our power
to counteract their agency.
In the first place we must
turn our attention to the too
great formation of blood and
divert it from an unequal
distribution. These means will
necessarily consist in a strict

observance of diet, in the judicious employment of exercise, and the proper administration of remedies. The two plan must be carried into execution; by recommending a diminished quantity of animal food, at first so, far as is compatible with the stomach and general strength of the body. A diet consisting chiefly of vegetables should be rigorously adopted. Nothing but water should be used for drink. The quality of such food as is taken should be that of easy digestion. Exercise should be regularly, and steadily pursued. Exercise must not be taken in the hot sun, nor should it be indulged in the extreme cold weather or in damp places. Those who are prone to

attacks of apoplexy should sleep in well ventilated apartments. The utmost care should be taken against the suppression of any habitual evacuations. The menstrual discharge if arrested should be recalled by the appropriate means. Bathing the head with cold water — every morning is very good for relief among those persons who are predisposed to apoplexy. The hair should be kept short, and the feet kept warm constantly by bathing in warm water mixed with the flour of mustard on going to bed at night. It may be important to employ remedies for the immediate diminution of the

blood and for this purpose the abstraction of a few ounces by means of the lancet or leeches will be found to be very serviceable. Costiveness should be guarded against with by diet or medicine; Aloetic pills together with rhubarb will answer very well.

I have finished

Yours

J. H. B

An
Inaugural Dissertation
On
Dropsy
Submitted to the Examination
of the
Trustees, Regents, and Faculty of Physic
of the
University of Maryland
for the
Degree of Doctor of Medicine
by
J. E. Hall
of
Queen Anne's Co.
Maryland

Difficulties

In selecting the above subject for my commencement essay, and in attempting this treatise thereon it, I have fallen into two errors which I conceive are very well illustrated in the early histories of many young aspirants to learning.

The errors to which I allude, and which not unfrequently thwart the ambitious schemes of such an aspirant, are these.

First: He sees the object at his mind too high. Then setting out upon his educational career he looks only upon the heights to which to him they seem to have already attained in the pinnacle of fame, and viewing only the illumined aspect of the scene, he resolves to rival or surpass them, and inscribe his name in the histories that record the deeds of the great. But he has not yet considered the early struggles of these men, the immensity of the work they had to perform; the indefatigable zeal with which they toiled on; the steady ardor with which they advanced; and the unwearying

patience they exhibited, and they were entitled to a place in the high and noble rank in which he now observes them.

Encouraged by the grandeur of the scene which now appears so vividly before him and cheered by the reflection that he will soon wreath himself an enduring garland of the flowers he shall gather from the richness of its fields, he devotes himself very zealously to the task before him; and on a which it may be, moreover with unfaltering step, scarcely conscious of obstacles opposing him.

But before he has proceeded very far, difficulties which he had not hitherto thought of, spring up rapidly around him, and he comes rather in such quick succession that he imagines they are about to overwhelm him. The bright prospect which at first appeared so unclouded, now begins to be but dimly seen.

This leads him next into his second error.

He begins to conclude from the more and more mournful aspect which his undertaking is

daily assuming, that he can never complete it; that his most earnest efforts will be inadequate to the task. He thinks that nature must have endowed those men — to rival whom he so much covets — with abilities quite transcending his own; and that all further attempts upon his part will probably only subject him to the ridicule of those who observe him.

Despairing of success, he abandons at his pleasure the highest aspiring activity; and the task at which he for a while toiled so vigorously, he deprecatingly relinquishes, though he has no more than begun it.

Though not quite parallel yet somewhat similar to these, have been my faults on the occasion of writing this. Dogmatism was hinted upon without a due consideration of the magnitude of the subject; the great variety of hypothetical conditions upon which it depends; of the equally great diversity in the kinds of treatment it requires; the vast amount of reading to compass even each of its subdivisions;

and urinary, the great length of time required in writing it fully and comprehensively. Having remarked upon some subjects pertaining to dropsies in general, and noticed the different cases of vesiculation, I proceeded to the consideration of the several varieties separately. But before I had completed this part of my design I was constrained to abandon it, and to bring the subject to a close, almost in its beginning. Dropsy is a term applied to denote an unnatural accumulation of serous or watery fluid into one or more of the serous cavities, or the cellular tissue, or into this tissue or the cavities at the same time. It occurs as a consequence of a derangement of the normal relation between the functions of absorption and exhalation. The one may be active, pouring out more than the natural quantity of fluid, while the other remains unchanged; or exhalation may be going on properly while absorption is deficient; or finally both functions may be disordered, so that

while exhalation is too active, little or none of the fluid is being removed, and in this case accumulation is very rapid.

Dropsy is not strictly speaking a disease, but rather a symptom of some other and more remote affection, to which it bears the relation in common with other symptoms, of effect. But in a pathological arrangement it is classed among diseases with nearly as much reason, I conceive, as is epilepsy and some other of the neuroses; for in these the deranged nervous manifestations are probably only symptomatic of some more remote change in the nervous centres, which would constitute the true disease. Indeed we are also occasionally to discover such changes (a spiculum of bone for instance pressing upon and irritating the brain, and by removing it, cure the epilepsy. In dropsy, the real disease may be organic change in the heart, the lungs, or the kidneys, but the effusion is the most prominent nature of the malady, occasions more discomfort to the patient, is frequently the greatest source of danger to

life, principally more intuitively than by the aid of remedies; so that dropsy in a practical point of view may very correctly be ranked as a disease.

According to several points from which we may look upon the disease, it is subject to so many classifications. When we take the condition of the normal system as the basis of arrangement, we divide it into sthenic & asthenic; if we regard it in point of time, we make it acute or chronic; the locality of the effusion serves also as a ground of division.

When it is in the cavity of the cranium, it is called hydrocephalus; in the pleura, hydrothorax; in the pericardium, hydropericardium; in the peritoneum, ascites; when diffused throughout the greater part of the cellular tissue; it is called anasarca; when in a very limited part of this tissue, oedema; and when it exists at the same time in a large portion of the cellular tissue and one or more of the serous cavities, it is termed general dropsy. Depending upon its cause also it has received

different names; when arising from disease of the liver, it is called hepatic dropsy; from disease of the kidneys, renal dropsy; of the heart, cardiac dropsy &c.

Sthenic dropsy is associated with a plethoric state of the system, indicated by a full, strong pulse, a ruddy complexion, a firm state of the solids, generally considerable muscular power, with a disposition to active hemorrhages and to inflammations. In this condition of system, the blood vessels being full, whatever serves as a source of irritation to the cellular tissue or any of the serous membranes, causes a determination of more than the natural quantity of blood to these parts, and the already loaded vessels are forced to relieve themselves by pouring out a portion of their contents. Whenever, because the coats of the vessels are not sufficiently relaxed, or the grade of action is not sufficiently high, or from some other overt cause, an exudation of the more consistent parts of the blood does not occur, constituting a hemorrhage; we have an effusion of the watery parts of the blood, thus

thus forming a dropsy. In such a state of anæmia whenever from exposure to cold or from other cause, the cutaneous exhalation is checked, or from disease of the kidneys the functions of those organs are interrupted, or from the cessation of an accustomed unnatural discharge, or from suppression of the menses, the fluid is made to accumulate in still greater quantity in the distended vessels, these find it necessary to seek some other outlet for a part of their contained fluid.

Asthenic dropsy occurs in a state of the system just the reverse of that to which we have now alluded. Here there is a watery condition of the circulating fluid. This may be reduced in quantity, constituting true anæmia; or there may be more than the natural proportion of the liquid parts, constituting hydræmia. The pulse in this case is sometimes strong as in the former, but it is generally irregular; the skin is pale, the activity of vision, there is debility of the muscular power and various

other symptoms indicative of debility.
Now in consequence of the greater tenuity of the blood, it passes with more facility through pores which would not allow of its escape, in its healthier and more consistent condition; while in this state too it is less nutritious, the solids are not so well supplied; they become more relaxed, the walls of the vessels become flatter, and offer very little resistance to the effusion of the watery fluid.
Acute dropsy may occur in either of the above mentioned conditions of system, but it is more generally an attendant upon the asthenic. It supervenes usually as a consequence of an attack of inflammation, which apart the effusion it may sometimes render abortive, by emptying the vessels of their load. But in either state of general strength it may happen, consequent upon the sudden suppression of a discharge, whether natural or unnatural; or upon abstraction suddenly brought to bear upon the

veins returning blood from some part; as happens when the bandages are applied too tightly to a fractured limb.

Like the form of dropsy first adverted to, chronic dropsy may be connected with either a sthenic or an asthenic state. But it is most commonly associated with the latter, because it generally depends upon structural lesion of some organ, which lesion itself debilitates the general health.

In regard to the varieties of disease based upon locality, I propose, from the extent of my subject, [illegible] the [illegible] [illegible] of [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. [illegible] is not a disease of [illegible] [illegible] [illegible] [illegible], children are most liable to it. It may depend upon those general causes which produce dropsy in other parts; sometimes it [illegible] [illegible] a [illegible] of the [illegible] [illegible] a [illegible] which it has [illegible] [illegible]. [illegible] [illegible] diathesis seems to predispose to it; [illegible] by the [illegible] of [illegible] [illegible] [illegible] the [illegible] of the brain, which [illegible] [illegible] a [illegible] [illegible]

[illegible] is the [illegible]
an undue quantity of blood. The liquid may
be effused in the cavity of the arachnoid; in
the ventricles; into the substance of the brain,
or into that of the pia mater.

The quantity of this fluid is sometimes
very [illegible]. Dr Bright, quoted by Todd, relates
the case of a [illegible] who died at thirty years of
age, [illegible] [illegible]
[illegible] [illegible]
[illegible] [illegible]
[illegible] [illegible]

The enlargement of the head or the head
[illegible] is the symptom which first attracts
notice. This sometimes attains such a size as
to measure twenty nine inches, a case is men-
tioned by the author just quoted. Such
distension could not possibly take place if
the bones of the cranium were not [illegible]
by separate [illegible] cartilage, [illegible]
are [illegible]; the [illegible]
so [illegible] that the [illegible] after
this [illegible] [illegible] the [illegible]
[illegible] and the fluid continued to [illegible]

later death from compression of the brain would soon be the consequence. The other symptoms which this affection presents are such as might, a priori, be supposed to result from the weight of the liquid, and the compression of the cerebral substance. Various nervous disorganizations are manifest; impaired vision, taste and smell; the bowels are costive, the urine scanty, and the pulse small and irregular.

My remarks upon hydrothorax will be confined to some of the physical symptoms, and to what have been called the physical signs, which are relied in connexion with the disease.

Any considerable amount of ~~effusion~~ liquid in the chest occasions dyspnoea, and increases in proportion as the effusion has been more sudden, and increases pari passu with the dyspnoea. Upon inspection is generally to be observed a bulging out of the walls embracing the fluid, the intercostal spaces are separated more widely than natural, and are raised,

when the accumulation is great, reaches above the ribs. The heart is pressed over to the healthy side. If percussion be made, dullness is found over the site of the effusion, and when the amount of fluid is considerable, this changes its location with the movements of the patient, always occupying the most dependent position. In applying the ear to the chest, the respiratory murmur is very little heard or is altogether absent. When the effusion is very slight, ægophony may be heard on directing the patient to speak; but this sign disappears as soon as the fluid has accumulated in sufficient quantity to be influenced by gravity. Now on the patients speaking we do not hear ægophony, as we would were it solidification of the lung from pneumonia, or other cause; and when the hand is applied, the vibratory thrill, produced by the speaking of the patient, when the lung is natural, and increased when it is solidified, is not at all perceptible.

Fluid poured out into the pericardium, em-

harrasses the action of the heart, producing [illegible] of the pulse, dyspnœa, [illegible] sometimes with pain. If aortic dilatation is increased in extent, the apex of the triangle of [illegible] dullness is carried higher up, so as occasionally to reach, and even go above the top of the sternum. The impulse of the heart, instead of being felt in the fifth interspace, is perceptible sometimes as high as the fourth. It is very visible, occasionally imperceptible, of a vibratory character, indicating that the heart has laboured up through a mass of fluid. The systolic murmur is generally very harsh, or quite inaudible; the diastolic is over the top of the sternum, but its distinctness is not much affected.

[illegible] frequently the [illegible] in [illegible] depends upon disease of the liver, but it may owe its origin to lesions in other organs, such as [illegible] disease in other parts; or it may be an idiopathic disease, resulting from irritation in, or some abnormal condition of,

the peritoneum. It presents the symptoms common to dropsies in general, besides others which originate from the peculiar disease upon which it depends; and from the compression to which the viscera within, and adjacent to the abdominal wall are subjected. From the latter cause there is dyspnoea, and irregularity of pulse; but not equal to that attendant upon effusion in the thoracic cavity. There are pressing, sticking pains, flatulence, and a sense of great weight and distension of the abdomen.

The enlargement may be distinguished from pregnancy by the absence of the signs peculiar to this condition; by the swelling taking place [illegible] and not at the lower part only; by the spreading out laterally of the abdomen when the patient lies on her back. From this state, as well as from encysted dropsy it can be distinguished, by the dullness upon percussion, extending its place with the motion of the patient, and in its [illegible] an

[illegible] with the [illegible] exanthe-
ma, and not the tuberculated feel of numer-
ous upraised cuts.

Fever is not to be associated with any of the
varieties of the disease, but it is very frequently
to be found at its outset; the rash being
preceded by a period of the stomach, in a
cutaneous eruption, more fulminating
scarlet fever; or it depends upon inflamma-
tion of the lungs, and the consequent inter-
ruption of their function, and congestion of
the entire venous system. Under this in-
flammation of the lungs or some other internal
organ, is of very frequent occurrence as a
consequence of scarlatina. It may origi-
nate from any of the causes which give
rise to dropsies in general, and then if it
continues long is usually accompanied by
effusion into one or more of the serous cav-
ities.

When it is inflammatory in its character,
it goes with copious effusion in the cel-
lular tissue of the face; more or less [illegible]

the loose tissue about the eyelids. This is found at first to be greatest at when the patient wakes in the morning, and disappears in the course of the day, to return again at night, on each succeeding night being more extensive, and more persistent during the day, until the whole face becomes swollen. Then the chest, upper extremities, and finally the entire body is involved. The swelling, when of this grade, is usually pitting, offers more resistance to pressure, not pitting so easily as when the dropsy is of a passive character.

This illustration would appear a considerable aid to the diagnosis of the cause of the disease, and point out the treatment to be pursued. When the disease owes its origin to organic lesion of the kidneys, the heart, or other organs, it is usually passive in its character. It then makes its appearance in a slight tumefaction of the feet and lower extremities towards evening, or after the patient has been some time in the erect posture. But

this swelling is not perceptible in the morning, having diffused itself so through the cellular tissue of other parts. But towards evening it is found again to have a visible to the feet, there being a free communication between the cells of the cellular tissue throughout the body. It continues to increase until the greater part or the whole of the body becomes involved; then some of the serous cavities become the seat of effusion and we have a general dropsy.

The amount of the fluid is sometimes so great, as to enlarge, enormously, the body of the sufferer; the legs and arms attain the growth more than twelfth their natural size.

There is usually great emaciation, which however is only apparent when some part does not happen to be affected, as when the dropsy is suddenly removed. The urine is occasionally scanty, as by cantharides, and there is a constant flow of serum from the part. Thereby very much diminishing the distension, but giving rise by the extreme tendency to

to much distress. The heart is also sometimes affected with exudations inflammation which may grow to ulceration and secondary to such an extent as to destroy life by the exhaustion of the already weakened powers of the sufferer.

The symptoms of this variety — besides those already out — are very those of dropsy in general, and I shall therefore not pass notice them.

From a knowledge of the anatomical and physiological relations, which the liver holds to the abdominal viscera, and from the numerous diseases to which it is subject, we might, a priori, conclude that it was the very often the source of a dropsical character. The post mortem examinations of persons who have died of dropsy, fully verify the conclusion. Even in many of those cases in which the heart or kidneys were been found altered, and which during life were looked upon as cardiac or renal, the liver has been in such a state of disease, as to

make it doubtful to which the dropsy should properly be ascribed. The blood from the stomach, the spleen, and the whole tract of the intestinal canal, having to pass by the vena portae through the liver, into the thoracic cavity, bearing it to the heart, is necessarily impeded in its course by any obstruction prior to the radicals of the portal vein, by disease of the liver. The vessel being thus congested, ceases to exude through its walls the serous portion of the contained blood, into the peritoneal cavity; or by a more indirect route into the cellular tissue.

The liver must become congested in common with all other organs when obstructive disease of the heart exists. And when there is a predisposition on the part of the former viscera, to take on morbid action, this engorgement may prove the exciting cause to some more serious and lasting change, which shall produce the dropsy altogether independent of the cardiac disorder. It is it may happen that the causes which produce disease

on the heart, shall extend its influence also directly to the liver, and the two be connected only as the results of a common cause.
That disease of the kidney is frequently the independent cause of dropsy is unquestionable. But that hepatic disease very often exists with this and plays an important part in the production of the dropsy is equally undeniable. One of the most frequent accompaniments of Bright's disease is structural change of the liver; and fatty degeneration of the kidney is also found generally with the same deposit in the liver.
Among the diseases most frequently affecting this organ, and giving rise to dropsy, may be enumerated cirrhosis, chronic congestion and inflammation, fatty degeneration, adventitious growths in its substance—such as hydatids—cancer &c.
Cirrhosis is characterized by a peculiar roughness condition of the surface, commonly called the hob nail liver. There is in the earlier stages enlargement of the organ,

consequent upon the effusion of lymph are seen during the inflammatory stage, but after a time it is reduced to less than the natural size, by contraction of the fibrous capsule, and other fibrous substance which has been deposited in it.

The cells are compressed by the pressure and by the contraction of the newly inter-fibrous substance, so that they are made to bulge out, forming the elevations of surface which have been noticed. It is frequently the result of spirit drinking, as is proven by its occurring often in drunkards. It depends upon other causes also, probably a fibrinous crasis of the blood. But the cause of the disease is yet involved in much obscurity.

Congestion and inflammation of the liver are of very common occurrence. They are almost constant attendants upon malarious fever. One of the most frequent procedures of drafting is an attack of remittent or intermittent fever; which from

neglect has been suffered to go on to the production of chronic inflammation, and induration of the liver. There is a great variety of other sources of this condition of the organ: the obstruction offered to the passage of blood through the heart, already noticed: the abuse of mercury hereditary sometimes produces it; the long continued use of alcoholic liquors: residence in a warm climate; external violence to the right hypochondrium; and numerous others which it is not within my limits to mention.
Fatty degeneration, tuberculous deposit, cancerous growths &c, are not of very frequent occurrence. They are their origin to some constitutional tendency, and are generally very difficult of recognition during life; so I shall say no more about them.
The peritoneal cavity, as might have been supposed, is most frequently the seat of a purulent originating from hepatic disease. But it is by no means confined to this cavity; for oedema of the feet and legs are

generally early accompaniments of ascites.
The enlarged liver sometimes presses upon the ascending cava so that the free return of blood by this passage is prevented, and effusion into the cellular tissue of all the parts from which this vessel returns the blood, is the result.
The manner in which anasarca or effusion into any other serous cavity than the peritoneal, should result from simple hepatic congestion, does not appear to me very obvious; at least until the accumulation has become considerable and the pressure very great. For this system is nearly isolated from these parts; it being connected only by the cellular tissue about the abdominal viscera. This it is true is continuous with that of other parts; but it is very loose and distensible, while that of the surrounding wall of the belly is so compressed by the firmer structures between which it is interposed, as not to allow of the free circulation of liquid through it.
It would seem therefore, that edema is not

a very early complication of ascites of purely hepatic origin; and when it does appear in the incipiency of ascites, it is probably the result of some other cause. This cause may be peculiar disposition on the part of this structure, to allow of infiltration into its cells. This disposition is probably irritation from sympathy with other parts — may be with the liver — or from great laxity, depending upon general debility. Or it may result from the condition of the blood. Hydraemia — as was observed in the beginning of this article — is well known to produce serous vacuolation.

There is a condition of the blood about which not a little has been said, as constituting a predisposition to dropsical accumulations, I mean the deficiency of albumen. This exists in healthy blood in the proportion of about twenty parts in the thousand. But in most dropsies, the urine, which normally contains none of this principle, is found to contain more or less of it; particularly in dropsies of renal origin; and such being the case, we

may infuse a portion is thus withdrawn from the circulating fluid. I do not think many cases of sufficient extent have yet been made with a view to determine this question.
But we certainly sometimes find such structural lesions, as under some circumstances produce effusion, existing for a long time without the supervention of this or infiltration.
Bright's disease sometimes runs its whole course, and no dropsy appears, tho' though albumen is very generally present in the urine in this malady, it is not invariably so; nor is the blood always deficient in this principle. "In three or four analyses out of four, of blood in Bright's disease, the quantity of albumen was decidedly increased — in one instance amounting to 109.4" in the thousand.
This would lead to the conclusion that deficiency of albumen in the blood, is at least a circumstance favouring the pouring out of the serous parts of this fluid.
The heart even more frequently than the kidneys, is the subject of organic disease without

being attended by dropsy. Albuminuria is not at all characteristic of the disease depending upon this cause. Hence especially the rareness of cardiac affections without dropsy.

Another mode in which other dropsies than ascites are produced by hepatic congestion, I imagine to be this. The hepatic vein takes up the blood distributed to all the viscera within the abdomen. When this vein ceases to convey away the blood from these viscera as rapidly as it is brought to them, by the arterial branches by which they are supplied; the arteries being unable to empty themselves with their usual quickness, become secondarily congested. The distension goes on increasing; and though felt at first only in the branches supplying the organs situated within the abdomen, it is finally made sensible throughout the entire arterial system; and effusion into any part may take place in the same manner as from the unnaturally distended veins.

We think we have now shown sufficient reason for believing, that edema is not often an early complication of abdominal dropsy

of hepatic origin; and when it does early make its appearance, it does not depend directly upon the hepatic congestion, but upon some of the causes we have endeavored to point out; and which are mere accompanyments, or secondary results of the hepatic disease.

When edema of the lower extremities is present in the incipiency of ascites, it should serve to direct attention to the heart, the kidneys, or some other cause more general in its operation than the liver.

There is nothing peculiar in the character of the pulse, to indicate that the liver is the cause of the effusion. When this organ is in chronic, the pulse will, of course be rendered more frequent; and fuller or more feeble according to the grade of ~~action~~ the inflamation. Palpitation of the heart may be induced by sympathy with the diseased viscus, and then there will be irregularity of pulse. The condition of the general system induced by the liver disease, will modify this symptom, as a natural consequence.

The urine is scanty and high colored, wit

is, almost always in other forms of dropsy. But it is rarely considerable unless the kidneys are implicated. It is generally turbid, in consequence of the admixture of bile, or of some of its constituents. The urine deficient are generally, though not invariably, light colored, from the deficiency of the secretion of the liver. Dyspepsia from the same cause is a common attendant. Colicky pains of the stomach and bowels exist to a considerable degree. A sense of fullness and weight in the right hypochondrium is generally experienced; and enlargement, if it exist may be felt in this region. Pain extending up the right side of the chest, to the right shoulder is often experienced. A dry cough, from the pressure upwards of the liver upon the diaphragm, causing irritation of the lungs, is an attendant upon enlargement. The icterode hue of the skin, sometimes observed, may be regarded as pathognomonic of liver disease.
Even in the absence of all these symptoms, when a dropsy exists, and by a careful examination of all the other organs, no cause of

the disease can be detected; the hepatic origin of it may be very strongly suspected, by a knowledge of the patients previous exposure to causes producing liver disease.

The heart being the organ through which the whole of the circulating fluid must pass in its course through the system, may have, it would appear, a very effective agent in the production of that infirmity of the vessels, upon which it has been seen ~~the~~ dropsy so generally depends. And the occurrence of such disease of the heart as offers an impediment to the flow of blood through it, is by examination after death shown to be very frequent. Rheumatism and gout are known to have a great affinity for this organ; frequently when they do not attack it primarily, leaving their original seats, and settling upon it, to exhaust their malignity in the production of some irreparable mischief in its structure. Peculiarities in common with all other organs of the body, of the liability to ordinary inflammation, and its well known destructive sequences.

Fatty degeneration, hypertrophy, softening and dilatation, induration, and morbid growths and deposits of a great variety, also frequently disease is from the proper performance of its function.

But notwithstanding the intimate relation it bears to the blood, and the great power in which it possesses to control its movement, it does not appear to be so often the independent cause of dropsical effusions, as we might a priori conclude.

Coexistent with the diseases of the heart, alone referred to, and connected with them, either as cause, effect, or result of a common cause, there is very often such a state of the blood or of the tissues generally, or such structural change of another organ, as tendingness to, aids, or independently gives rise to dropsy. On behalf of this point, I do not know that I can do better than simply to transcribe from Dr Flatbers work on the Heart and Lungs some remarks which seem very pertinent to the subject.

"1. Mitral regurgitation or insufficiency, or its equivalent, stenosis, may occasionally exist and for a lengthened period without systemic venous congestion. 2 This proposition continues true, whether hypertrophy exist behind the obstruction or not. 3 Simple hypertrophy of the left ventricle may reach the highest point without systemic venous congestion ensue. 4 Dilated hypertrophy, even of the left ventricle, may last for years without any such effect, provided the dilatation be not in notable excess."

And after specifying various other cardiac lesions, which exist without the occurrence of effusion. He says: "It would appear then, that something beyond all these cardiac conditions is wanting to ensure the occurrence of dropsy, unless on the probable assumption that, were life sufficiently prolonged, they would in themselves of necessity induce it."

In a preceding part of this essay I have endeavored to make it appear probable that a deficiency of albumen in the blood, is one of the causes which aid under these circumstances,

in producing the effusion.

The manner in which an impediment, effected by a diseased condition of the heart, to the free circulation of blood through it, produces dropsy, has seemed to me, not to be very fully shown by authors. The explanation of the cause is very correct as far as it goes, but it is not, I conceive sufficient; it comprehends only one half the cause. They merely say that when constriction of the orifices or regurgitation through the valves exists, the blood not passing through with its wonted rapidity, becomes dammed up behind; that is in the veins. But they do not mention the force which causes this impletion of the venous system.

It cannot be the heart, for in just such ratio as the blood is stanched in this organ, are the arteries deprived of their natural amount of this fluid, and are rendered less full and tense than before. In this condition, they cannot communicate the force of the heart to the parts which are beyond them, with their accustomed power.

The force will be diminished in a proportion, exactly equal to the amount of retention in the heart; so that the veins will not receive the force of this organ, and cannot become congested from this cause.

Where then is this force to be found? Chiefly in the capillary blood vessels.

The question, whether these vessels have any effect in the movement of the blood, or are merely passive agents, is one about which physiologists have been divided. But Dr Carpenter has adduced much evidence in favour of their power, to carry on the circulation through themselves, independently of the heart; and it appears to me that the occurrence of venous congestion, consequent upon cardiac obstruction, is a pretty strong argument upon this point.

It does not seem at all strange, that the capillaries should have an affinity which determines arterial blood thereon, analogous to that which determines the flow of the peculiar constituents of the secretions, to the

cells of the various organs secreting them. The blood undergoes a change in these vessels by which the tissues are nourished; and it must be constantly moving on, to make place for fresh particles. Thus the heart not allowing the blood to lag behind, though it, and this is a large still urging it on, the cross must be one cause. This little digression, though not exactly too relevant to my subject, I do not think altogether irrelevant to it; and I hope it will therefore be excused.—

I have endeavored to write systematically, though with very little regard to form, the subject which I have selected for this thesis. But from its very wide range, the great number of subdivisions which it comprehends; and from my unwillingness to abstract more time from the study of other subjects equally deserving our attention, I am compelled to rest with my task unfinished, and present to you this incomplete dissertation, as the Inaugural Essay of

J. C. Hall

An Inaugural Dissertation
On
Phthisis Pulmonalis.
Submitted to the examination
of the
Board Regent, and Faculty of Medicine
of the
University of Maryland;
for the degree of
Doctor of Medicine.
by
George P. Gibson
of
Maryland

In this attempted dissertation upon Phthisis Pulmonalis the account of the disease will be presented in the following manner – The Tubercle, its nature, and progress of its evolution, – the Ascultatory Signs of Phthisis – Symptoms – Diagnosis – Some of its different forms – Treatment.

Phthisis Pulmonalis is that species of consuming disease which consists in the possession of the lungs, and ordinarily of some other organs, by tubercular matter, and of the changes wrought in and by that matter. The term tubercle, from the Latin "tuberculum", literally denotes a small swelling; this name was applied to the rounded bodies so often found in the lungs and other organs, it was also been used to designate the same substance when infiltrated in masses, consequently the name is inappropriate as in this latter case the original meaning ceases to apply. At present, tubercle is generally considered to be a peculiar morbid deposit composed of unorganized matter usually of a yellow, or

rather, of a yellowish, colour but sometimes gray resembling, somewhat, new cheese, varying in size, form, and consistence, though sooner or later, undergoing softening: previous to the softening its surface is smooth, but subsequent to it, granular, it is friable and may be pressed into a pulpy matter. Tubercle, when examined through the microscope under a high magnifying power, will present to the view a number of irregular shaped bodies generally of a round or oval form, these are called tubercle corpuscles; they are composed of a wall containing one or two granules without any nucleus, these corpuscles are mixed with numerous granules — When tubercles have become calcareous or cretaceous the corpuscles and granules are mingled with gritty particles of earthy salts; pigmentary matter is frequently found in tubercle, this is met with oftener and to a greater extent in the old than in the lately formed. When the tubercle is recent in its formation and tough in its consistence the

corpuscles are collected closely together and the granules are comparatively few, when it is older and has undergone the process of softening, the corpuscles are further apart and the granules increased in number; the corpuscles are said to be kept together by an intermediate substance and the softening which takes place is owing to the breaking down of this together with that of the corpuscles. Tubercles corpuscles may be distinguished from cancer cells, or pus-corpuscles, by their smaller size but principally by their non-nucleated structure. It is stated that tubercle consists of animal matter and earthy salts and that earthy salts prevail in old tubercle, while the animal matter is the more abundant in that of recent formation. There is, at the present time, scarcely a doubt but that tubercle is a sweating out of the liquor sanguinis from the pores of the vessels having a tendency for the free surfaces of mucous membranes and the fibrous and albuminous textures,

caused, in all probability, by some defect in the refinement of the blood. Tubercular matter is deposited in the different organs in two principal varieties, insulated masses and infiltrated. Insulated tubercles are divided into miliary, crude, granular, and encysted. Infiltrated has three forms, the gray, yellow, and irregular. Miliary tubercles - in this form, the most frequently assumed by tubercular matter in the lungs, the tubercles are of a grayish colour, almost transparent, and of the size of millet grains, they adhere closely to the pulmonary tissue and, growing together, then become united in groups. Granular tubercles do not appear so frequently as the miliary, they are round in shape, uniform in size, colourless and transparent; they are spread over a whole lung in great numbers but never join together, no matter in what proximity they may be always preserving their distinct granulation. When a cavity is lined by a

semi-cartilaginous membrane it is called an encysted tubercle. The capillaries in the lungs having deposited tubercular matter in a fluid state, it passes through the membrane of the air vesicles and fills them, in this case we have the round form, resulting from the shape of the vesicle, the form of the tubercle depending almost entirely upon the part in which it is deposited, this tubercular matter in the vesicle having coagulated forms a foreign body which can only be removed by absorption or excretion after softening; the ulceration affects the neighboring parenchyma, which is more or less irritated, and also the pleura causing a fibrinous exudation and great adhesion to the ribs - adhesion is most common in the apices and back parts of the upper lobes of the lungs merely because these are the situations in which tubercles are most abundant - the ulceration going on affects the bronchial tubes and the lung is by degrees destroyed and being no longer capable of performing

its office a fatal result ensues. The tuber-
-cular matter may remain unchanged, in
quantity and quality, for a time, but usually
by its increase an inflammation is set up
in the pulmonary substance in its vicinity,
suppuration takes place, the matter softens
and breaks down and subsequently is emit-
-ted through the bronchi, the trachea, and
the mouth, — if more tubercles in the neighbour-
-hood of ~~the cavity~~ are also in a state of soft-
-ening they will coalesce with it and a larger
~~cavity~~ will thus be formed but if none such
exist in close proximity it will retain its
original size and the tissue around it will
usually become solidified and hardened.
With the disease formed by tubercular depo-
-sitions in the lungs an ulceration of the
air passages is almost always complicated,
ulcers of the large intestines are very often
associated, but what is called the "fatty liver",
a change almost peculiar to phthisis, is the
most frequent accompaniment; this consists
in an enlargement of the organ and its en-

-agreement with adipose matter, losing its natural red colour and assuming a pale drab tint. Peyer's glands, situated at the lower part of the ileum are also often much ulcerated. Among the causes of phthisis, cold, it is generally admitted, is one of the most prolific, but we should not neglect to remark that in northern countries persons do not suffer so much from cold as those inhabiting temperate climates owing to the greater precautions which the severity of the winter compels them to adopt. The disease is not frequent among the natives of mountainous regions, quite common in temperate climates but rare in those countries which are situated between the tropics particularly those parts of them lying upon the sea — it is said to be more common in large cities than in small ones and of less frequent occurrence in the country than in either — there is, perhaps, no surer cause of phthisis than the operation of the depressing passions especially if these are of long continuance, this has always been remarked

by physicians who have had under their charge convents or other institutions where the most severe religious dogmas have been kept constantly presented before the minds of the inmates. Severe continued fevers are often the cause of the production of tubercles in the lungs. Although Phthisis has been, and is yet among the vulgar, thought to be contagious, no proof exists that it really is so, "Phthisics are not communicable." As regards sex women seem to be more liable to phthisis than men. As to hereditary influence, children are hereditarily predisposed in proportion as their general health is infeebled, no matter what may be the cause. When a portion of lung is solidified by tuberculization the auscultatory signs will be the same as if it were so made by common inflammation; if the solidification be complete no vesicular breathing will be heard, but if the solidified part includes a large bronchus both bronchial breathing and bronchophony will be audible and upon percussion over the part a dull sound will be

given. Vesicular breathing is an inspiratory murmur, it is of a weak dull character though much stronger and of longer duration than the sound heard during expiration, it much resembles the profound inspiration sometimes given in deep, quiet sleep; it is produced by the expansion of the air-cells and smaller bronchi overcoming their contractile power. As a general thing the vesicular murmur ceases wherever the tubercular lesion involves any large surface of lung, because no expansion of the air-cells can take place unless the air be permitted to enter them freely. Bronchial breathing is an expiratory murmur resembling the sound produced by blowing into a metallic or wooden tube, the idea of air passing through a large empty space is suggested by it; it is the sound of respiration observed in the larynx, trachea, and large bronchial trunks and is caused by the inability of the air to penetrate the cells, in proportion as the lung

becomes condensed so will the sound become more distinct. In the healthy lungs the voice, which originates in the larynx, is propagated also in the air contained in them but this cannot be clearly perceived by the ear when applied to the chest on account of the bad conduction of sound, but when the membranous walls of the bronchi become solid, by their vibrations they enable it to be heard by the auscultator and partaking somewhat of a ventriloquous character it is called bronchophony; among its diagnostic significations are hepatization, tuberculosis, plessitic exsudations and haemorrhagic congestion. Aegophony, the bleating voice, may occur under several circumstances, the pressing flat of the bronchi, a small portion of loose mucus &c, it is not very important as a diagnostic; the tremulous voice of the very aged in its extension through the lungs resembles it. Gurgouillement, the gurgling sound, the lancet and

most irregular bubbling, indicates a cavity in the lungs which cavity will in most instances be a vomica, the sound is caused by the bubbles produced by the entrance and exit of air into and out of the vomica communicating with the trachea through the pervious bronchi; gurgling, as before stated, is not an infallible sign of vomica, it may be caused by abscess which is the result of common inflammation of the lung, it is, however, of the greatest diagnostic value when taken in conjunction with other signs of phthisis. As vomica empty of pus, or vitiated mucus, or of liquid of any kind, produces what is termed cavernous respiration, this is an increase of the bronchial, it is very similar to the sound of the air entering the trachea of a person in health; it varies according to size, form, and condition of the vomica. A cavity may be of such large size and of such a nature as to produce the metallic tinkling generally heard

in pneumothorax, to yield this the walls of the cavity must be thin and tense and a bronchial tube must communicate with it; the amphoric resonance, and for this also the walls of the cavity must be thin, is merely a species of cavernous respiration; a vomica producing both the metallic tinkling and the amphoric resonance is probably very large. When these sounds, viz gurgling, cavernous respiration, metallic tinkling and modification of the voice are present and well marked they almost always show the existence of a vomica. All all these may be caused by any cavity in the lungs, no matter what its nature. The symptoms of Phthisis are cough, Expectoration, Hæmoptysis, Dyspnœa, Pain, Fever, Sweats, Thirst, Diarrhœa, Emaciation, Hoarseness or loss of voice, and in women suspension of the Catamenia. Cough is one of the earliest as well as one of the most important symptoms of Phthisis pulmonalis, and although the disease may sometimes exist and terminate fatally, without its occurrence, this very rarely happens; it is, in nearly

every case, present, to a greater or less degree, during all the stages, and it is usually this symptom that awakens the fears of the patient as to his condition; at its commencement it is generally weak and dry, occurring early in the morning, or upon unusual exertion; sometimes it is excited by a cold temperature; in the majority of instances it is most troublesome at night, interrupting sleep even after opiates - after the dry stage it is accompanied by a mucous expectoration; in the first part of the disease the cough resembles that of a dry catarrh, and as a similar one may arise from disease of the heart or from a disordered state of the stomach, great care should be taken to ascertain its true nature - the phthisical cough when it comes on in paroxysms often causes much dyspnoea, vomiting and an oppressive feeling in the epigastrium; the violence and frequency of the cough is, in general, in proportion to the more or less rapid progress of the malady: in all cases cough is a spasmodic action caused by exciting the branches of the pneumogastric nerves and pro-

-ducing reflex movements in the bronchial tubes and muscles of the chest. The expectoration following this cough is at first scanty and muco-purulent but afterwards abundant and purulent; the sputa from being white and mucous becomes dark and greenish, deprived of air, and streaked with dull yellow lines which sometimes make them appear as if composed of many colours: the sputa most characteristic, however, are the nummular, they are composed of globular, flakes masses which present for sometime a greenish yellow tinge but afterwards assume a dirty grey appearance; the union of all these characters of the expectoration, ie the existence of green, opaque, homogeneous, and nummular sputa, indicates with an approximation to certainty a tuberculous excavation in the lungs. Hæmoptysis, the expectoration of blood, is present in an average of two thirds of the cases of phthisis — the expectoration of a few mouthfuls of pretty blood is of no considerable importance, but copious hæmoptysis, by which is understood

the coughing up in the course of an hour or less, of several ounces of liquid & purulent blood occasionally coagulated and dark colored, makes the existence of tubercular matter in the lungs very probable. Hemoptysis, sometimes, though not often, precedes both cough and expectoration and is usually more copious during the first stage of the disease; sex has an evident influence upon it, it being much more frequent among women than men — as regards age, it seems to occur oftener in middle-aged than in young people — strong and weak constitutions are alike liable to it — copious hemoptysis is rarely repeated oftener than two or three times. Dyspnoea is not a very important symptom, it is, in general, but slight — and seldom extreme even at the termination of the disease, it commences with the cough, yet it has been known to occur before that symptom. The reason that phthisical patients do not suffer more from dyspnoea is this, in consequence of diarrhoea, sweats, and abdominal disease

the mass of the blood is kept down to such an extent that the part of the lung still healthy is enabled to oxygenate it without extraordinary frequency of breathing. Pain of the chest is not a very troublesome symptom, and perhaps this, together with the insensible progress of the other symptoms, is the cause of the deception which most patients labour under in regard to their situations. In some cases, pains resembling those of rheumatism are complained of, while in others none whatever are experienced: when violent pain together with dyspnoea and anxiety suddenly occur we may with safety affirm that perforation of the pleura has taken place. Fever, a sign of much consequence, not infrequently begins in the first stage and continues through the whole progress of the malady, commonly the pulse is above ninety though it often rises much higher: the fever, in most cases, comes on slowly, the patient feels chills in the night, his hands and feet are dry and hot, and in the morning he perspires, the

perspiration, which is most copious about the head and upper part of the body, almost always takes place during sleep, it differs very greatly in degree — Sudamina are rare in phthisis yet occasionally they do appear. Thirst is usually proportionate with fever commencing with it and increasing during the night exacerbations, some degree of thirst is present in nearly all cases. Diarrhœa exists in nine tenths of the cases of phthisis, in most it begins after the disease is well under way but sometimes at its very commencement; it depends upon scrofulous ulceration of the mucous membrane of the small intestines and the colon, in some cases it is very violent, causing from twelve to fifteen copious stools a day. Emaciation, a constant attendant of phthisis is produced by the derangement of the digestive organs, the profuse sweats, and the diarrhœa and also by mal-nutrition arising from extensive alteration of the parenchyma of the lungs. All the tissues suffer from emaciation. the adipose almost disappearing; the skin becomes thinner

and the muscles are diminished in volume.
The difficulty in diagnosis of tubercular dis-
-ease depends very much upon whether the
the tubercles are numerous, large and in an
advanced stage, or the contrary, for when the
latter is the case no very perceptible difference
from the natural sounds may result on
percussion, nor may the breathing be chan-
-ged. Before the formation of tubercular exca-
-vation the diagnosis is often uncertain, but,
by careful examination, much can be as-
-certained — the expectoration is at first clear,
frothy, and white and retains these characte-
-ris for quite a length of time, and may thus
be distinguished from the expectoration of pul-
-monary catarrh, which is stringy and tena-
-cious fluid somewhat like the white of egg —
the cough, generally, comes on without any ap-
-parent cause and is often dry, by this circum-
-stance a difference from bronchitis is discerned
as this latter is always accompanied by expec-
-toration; in bronchitis, thoracic pains, when
they do occur, are confined to the middle of the

sternum, in phthisis they are very frequent and are situated in the sides of the chest and between the shoulders — the occurrence of hæmoptysis previous to tubercular excavation, preceded by cough, expectoration and thoracic pains, makes the presence of tubercles vastly probable. Greater dullness on percussion under one of the clavicles than the other, and the sound of expiration heard more distinctly at the summit of one lung than at the other, serve to establish the diagnosis formed upon the other symptoms. After the formation of tubercular cavities the sputa become greenish and are marked with yellow streaks upon their surfaces, they are also thick, and rounded in form. If the upper lobe of either lung be converted into tubercles the part of the chest over it will be dull on percussion — the respiratory murmur is strongest over that part of the chest under which are the largest cavities — the voice becomes resonant, after which comes pectoriloquy constantly increasing in distinctness — a large tubercular excavation filled with fluid and air and

having a connection with a bronchial tube will be discovered by metallic tinkling. The treatment may be divided into, the prophylactic when there is a tendency to the disease, measures for putting a stop to it when it is in its initiative stages and limited in extent, and those which will afford a mitigation to the most distressing symptoms when it must necessarily prove fatal in its termination. Of the prophylactic treatment, the first and most effectual is residence in a warm climate and pure atmosphere; the diet should be nutritious, yet simple and un-stimulating, and great care should be taken to avoid all great physical or mental exertion, or anything which can interfere with the increase of strength of the constitution. Much attention should be paid to the functions of the skin and bowels. After pulmonary tubercles are formed the first thing indicated is to improve the faulty nutrition, if cow's milk disagree with the patient ass's and goat's may be tried. Cod-liver oil is also much used, if this is assimilated it enters into combination with albumen and forms

the elementary corpuscles necessary for healthy chyle. One of the best curative measures is exercise in the open air, especially equestrian, yet it must not be forgotten that all violent exertion or whatever tends to accelerate the circulation must be avoided. In the early stages of the disease, particularly, if the symptoms are chronic, travelling will be likely to prove beneficial; where there is a great tendency to hæmorrhage sea voyages have been recommended. The use of emetics has been almost universally advised; they are supposed to remove the tubercular matter from the mucous surfaces, as nearly as fast as it is deposited; those most employed are Sulphate of Zinc, Sulphate of Copper, Tartar Emetic, and Ipecacuanha — their use is obviously contraindicated by hernia or pregnancy. Counter irritation is most favorably regarded in the treatment of phthisis, it should be permanent in proportion to the chronic character of the disease; when it prevents sleep, its mode of application must be varied, but if this does not suffice it must be entirely discontinued. Mustard plasters will usually relieve pain

in the chest, and local symptoms may be met by tartar emetic ointment. Hot air baths, from their diaphoretic effect, are beneficial. Bleeding, when employed with great discretion and moderation will often afford relief to the thoracic and hectic symptoms, the buffy appearance of the blood, so common in phthisis, is very far from indicating venesection. The treatment of hæmoptysis can only be of a palliative kind, rest in the horizontal posture, cold applications to the chest and scrotum, with warmth to the extremities, small and repeated bleedings, and astringents, are the best means; a tea-spoonful of common salt has been successful in arresting it. Nocturnal perspirations when combined with febrile symptoms may be checked by sudorifics, dilute sulphuric acid is a good remedy, the object being not to stop them altogether but merely to moderate them. Cough, when so distressing, disturbing sleep by night and harassing the patient by day, must, if possible, be alleviated, this may be done by the exhibition of small doses of Prussic acid, pyrovanus, digitalis, or some one of the different preparations of opium, Paregoric is the one usually employed.

An Inaugural Dissertation

on

Evolution of Heat in the Animal Organism,

Submitted to Provost, Regents and Faculty of Physic

of

The University of Maryland,

For the Degree of

Medicine Doctor.

By

A. J. Jappington

of

Maryland.

"All the vital actions of the body of man, as of warm-blooded animals generally, require, as a condition of their performance, an elevated temperature; and the high degree of constancy and regularity observable in these actions appears to depend, in a great degree, upon a provision which the organism contains within itself for the maintenance of that temperature at a fixed standard".* Such being the dependence of man upon this power which first determined the formative process in virtue of which he was developed as embryo, and called into being, we cannot easily overestimate the vast - the vital importance to which it is entitled. The proper and regular supply of Heat being furnished, the foetal structures progress to that state of maturition which, at least to a great extent, influences and determines parturition, and results in the production of "man in miniature", which, in turn, must be sustained by that agent which gave him life.

In evidence that the regularity in the period of parturition is a consequence of the proper and reg-

* Carpenter's Hum. Phys. 5th. Ed. p. 615.

ular supply of Heat, we have to refer, from man to his analogue in the embryo bird, where we find the fœtal development in precise and invariable proportion to the Heat applied during incubation – interrupt this and immediately the developmental process is arrested. Again, in cold-blooded animals, which are incapable of maintaining an independent elevated temperature, but are indebted for their bodily warmth to the ever-varying surrounding medium, no such regularity and uniformity are exhibited as are seen in the former class. The inference from these considerations seems, to my mind, are of necessity that the great regularity in the period of parturition, in warm blooded animals, is owing to their possessing the faculty of maintaining an independent elevated temperature. We will now enquire into the amount of heat generated by man.

For information in reference to the ordinary temperature of the human body under different modifying circumstances we are chiefly indebted to Dr Davy

whose investigations and observations have thrown much light upon this branch of Physiological Science. Dr. Davy's first set of experiments was performed upon 114 individuals of various ages, averaging 27 years – of both sexes, and under different circumstances, as to climate &c. &c. The results obtained, in a mean temperature of 74° Fahr., were as follows:– The highest point indicated by a thermometer placed under the tongue was 102°– the lowest 96½°– the mean of all the experiments being 100° which Dr. D. Davy is inclined to assume as the average temperature of the body. It seems probable, however, that this is too high an estimate by one, or probably two degrees, since others have failed to obtain an average point reaching that laid down by Davy as the standard.

It is self evident that the temperature of the body must be very much influenced by a variety of disturbing causes – the most important and best understood of which we will now proceed to examine. First is age which, as we showed sup-

pose from a priori considerations, had an effect. The temperature of infants was found, very soon after birth, provided they were placed under conditions very favorable for the production and maintenance of Heat, to be considerably above that of adults; but if thrown upon their own resources their temperature underwent a marked and rapid depression; and, according to Dr Davy, they do not acquire the faculty of maintaining a degree of warmth equal to the adult average until they attain their 14th. year. Now it will be shown in the sequel that the temperature of the body is chiefly indebted to the activity of the Respiratory function, and since this function is not fully established at birth, nor indeed for a considerable time thereafter, we at once see why this inability to sustain a sufficiently high temperature is manifested by infants. Still we should suppose that the Calorifying power would be fully acquired some time prior to the attainment of the 14th. year as stated by the before-mentioned author.

in the very aged no diminution in temperature was found, provided there were present no external depressing causes; but when these were acting the temperature fell much more readily and rapidly than in the young under the same circumstances - Showing the incapability of old persons to resist cold because of the tardiness with which their functions are performed at this period of life - hence, no doubt, the popular opinion which assigns to the aged an habitually inferior degree of animal heat. In the second place, we have Diurnal Variation as an influencing agent. Slight variations in the bodily temperature are known to occur at certain periods of the day - the maximum being reached about noon, and the minimum about midnight. Times these are never very considerable, but the general constancy of their recurrence forbids the idea of their being accidental, and induces us to seek an explanation. This is found in the fact that there is perfect identity in the increases and diminution in the activity of the Respiratory function

with the increase and diminution observed the animal temperature*; consequently, there being a more active process of combustion going on at these stated periods by means of Respiration, a corresponding increase in Caloric must result; whilst, on the other hand, when that function is acting less energetically a depression of temperature ensues. Thirdly, we have Exercise. Every one is aware that this cause tends to increase, and rest, to lessen, the temperature of the body, but accurate observations have shown that the increase consequent upon Exercise is confined to the extremities, as also the depression consequent upon rest — the deep seated parts being little, if at all affected by either: Fourthly, the Ingestion of food — the influence of which, altho' not yet fully investigated, is probably, like exercise to increase the temperature of the extremities — whether a corresponding elevation occurs in the deep seated parts is uncertain. Fifthly, the Influence of External temperature. This has already been referred to, and altho' it may act upon different persons with varied intensity

* Carpenter's Hum. Phys. p. 529.

because of some individual peculiarity, yet there can be no doubt that exposure to cold has universally the effect of depressing the standard of bodily warmth and that this is favored by rest and resisted by exercise. So, on the contrary, a high degree of external Heat would elevate that of the body, tho' the increase, under such circumstances, is not so great as, at first sight, would seem probable. For instance, 'tis found, that an increase in the animal heat of from 11° to 13° Fahr. proves fatal, yet a temperature of 250° and 280° has been borne for a considerable time without an augmentation in the body of more than 2° or 3°; and indeed we are informed that even 400° and 600° has been endured and the effect upon the animal - man as well as others - did not show an increase in proportion to the external intensity. If, however, the air thus heated were charged with moisture, the power of animal endurance was at once diminished, in consequence of the impediment presented to the vaporization of the Cutaneous secretion, by which the internal fires are kept in check, and partially also

in consequence of the increased conducting capacity of the medium when thus loaded with humidity. And, sixthly, we have the influence of Disease. The effect of this upon the bodily temperature may be exerted either to increase or reduce the usual standard. In those affections which involve an accelerated pulse and quickened respiration the heat of the body is almost always above the healthy mean; and this is found to be more the case even when the greater part of the lungs has been rendered incapable of performing its proper function, as in advanced cases of Phthisis pulmonalis. On the other hand in diseases of an opposite character as Cholera, Asthma &c, a depression occurs - reaching, in a recorded case of the former disease, as low as 78°, and in a case of the latter, to 67°.

We have now passed in review the general facts in reference to the faculty possessed by the higher animals of keeping up their temperature at a fixed and [illegible] standard, and of preventing it from being pushed to a point much beyond its average, even by very

high degrees of externally applied Heat. We have also hinted that this regulation of temperature, and this check to the rapid generation of heat within the system is due to the proper [illegible] of the function of the skin which constitutes as it were a safety valve by which an excessive accumulation of Caloric is counteracted. We will now enquire to what this faculty of maintaining an elevated temperature is due?

In the investigation of this subject it is essentially important to bear in mind that the capacity for generating heat is not possessed by animals alone, but that plants exhibit the same power when the circumstances are such as prevent the escape of the Caloric produced. For instance, in malting, where a large collection of germinating seeds are heaped together, the temperature is found to rise from 40° to 50° beyond that of the surrounding medium; and moreover, it is ascertained by experiment, that this increase in such cases bears a remarkably constant ratio to the amount of Carbonic Acid generated by the union of atmospheric oxygen with the Carbon

supplied by the vegitable tissues, showing beyond question that this increased temperature in Plants is the direct result of the combustive process, which as we shall presently see, also sustains man, and other warm-blooded animals, by imparting that degree of bodily warmth indispensable to the due performance of the vital functions. In all animals a very constant relation is seen between the quantity of oxygen consumed, carbonic acid set free and the amount of Heat evolved. In proportion as the consumption of oxygen increases or diminishes in just such ratio does the amount of Carbonic Acid liberated and Caloric produced vary. Now the means by which oxygen is chiefly introduced into the system is thro' respiration, and its introduction is made by an All wise Providence to subserve a double purpose.— viz— 1st. to unite with the Carbon, with which the venous blood is charged by the constant disintegration of the tissues, and by forming and liberating Carbonic Acid, decarbonizes that fluid and renders it suitable to circulate again thro' the penetralia of the system, and fits it for the nutrition of the various organs and tissues;—

and secondly by this union of oxygen and carbon a slow combustive process is established and sustained which is the direct and almost exclusive means of regulating and maintaining the temperature of the body. With the former of these offices we have, at this time and place, no concern - the latter alone falls within the domain of the present subject. It is evident that if either of the elements of Calorification be not duly supplied in proper quantity a depression in temperature must be the result - thus breathing an atmosphere surcharged with carbon soon proves destructive to life, and, upon examining a patient suffering from such inhalation, the bodily warmth will be found below the healthy standard - and why? Because oxygen not having been supplied in the requisite quantity the combustive process has languished. If carbon it is not contended, but the decrease in Caloric caused the death of the patient, but is only noticed to show that the bodily temperature is dependent upon the introduction of the proper quantity of oxygen to support the combustive process. Death is caused by the poisonous effects

which carbon exerts upon the system when present in excess - the blood is rendered unfit for circulation, and death from Asphyxia supervenes. On the other hand, if the carbon furnished by the blood be in quantity too small death results directly from the depression of temperature to a point too low for the maintenance of that functional activity necessary to sustain life.

The repair and support of the tissues, and the elaboration of the blood being modified by, and dependent upon the quantity and quality of the food, it follows that if it do not contain the proper principles, or if it be entirely withheld the combustive process must be interrupted, and thro' this the reparative tendency throughout the economy. This is strongly illustrated in a series of experiments made by M. Chossat upon Starvation*. He found that birds submitted to the inanitiative treatment lost an amount of Heat, from the first to the last days, averaging about 41½°, but on the last day the loss was 25½°. Upon examining the waste from the different parts of the body it was found by Chossat

* Brit. & For. Med. Rev. Apr. 1844.

that the nervous matter has suffered but slightly, whilst the adipose tissue has undergone almost entire annihilation. He also observed that, cæteris paribus, the duration of the lives of animals thus treated was varied by the amount of fat previously present. These two facts combined point clearly to the following conclusions:— 1st. that the adipose tissue constitutes the great dependence of the fatsifying process when food is withdrawn — 2nd. that food best calculated to increase and produce this matter is most conducive to the production of Heat — and 3rd. that, in cases of Starvation, death results from the frigorifying process which is set up, and by which the body is cooled beyond the point at which the machinery of vital activity can be kept in motion — the internal supply of combustible material being exhausted there remains nothing, in absence of food, whereby it may be replenished.

In confirmation of these conclusions we will adduce some evidence. To fortify the first — that the adipose matter contained in the body is the great

source of Calorie — we have only to revert to analysis of the substance in question and observe the vast relative amount of Carbon which it contains. I have found obtained the following results from the fat of the different animals named :—

	Hogs Lard	Mutton Fat	Human fat
Carbon ---	79. 098.	78. 990.	79. 000
Hydrogen ---	11. 146.	11. 700.	11. 416
Oxygen ---	9. 756.	9. 304.	9. 584
	100. 000.	100. 000.	100. 000

Whence it may be readily conceived that the adipose tissue serves as the immediate pabulum for the combustive process. With regard to the second conclusion — that those articles of food which tend to favor the production of fat greatly subserve the Calorific process — we may refer to common experience. We all know that in warm weather, when we need less inherent Calorifying power, we choose instinctively, as it were, those articles of food, which are less rich in oleaginous principles; we prefer vegetable and farinaceous substances to animal diet;

whilst in winter the reverse is equally true. Again, the Esquimaux and other northern tribes living under an extremely low temperature during the whole year, consume vast quantities of animal food of the fatest kind, and are even said, doubtless with truth, to partake largely of pure oil. Among tribes equally as savage and uncivilized, dwelling under the tropics, no such penchant is manifested — so prove the legitimacy of the final deduction, that death under inanitiative treatment is a consequence of the frigorifying process set up and continued — we will adduce the results of another set of experiments instituted by Chossat with the view of testing the correctness of his former inferences. He found that birds, which had been submitted to the starving process until death was imminently impending, were restored to activity by the simple application of artificial heat. So soon as the warmth was applied they flew about the room — took food when offered them, and if the artificial heat were continued until the food taken had undergone digestion, and had become fit to furnish the pabulum for the combustive process,

the animals were perfectly restored; but, in consequence of the weakened condition of functional power, considerable time was necessary for digestion to proceed to that extent which would sustain an independent Calorific capability. If the heat were withdrawn before digestion had gone to the requisite point, the temperature at once began to fall and unless it were reapplied death supervened.

Reference has already been made to the agency possessed by the skin in influencing the maintenance and regulation of the Animal Heat. This influence is very strikingly shown by experiments performed upon rabbits, showing the great — may it would seem, the essential necessity of Cutaneous Respiration to animal life. Rabbits were shaved completely of their hair and perfectly coated over with a preparation of glue, suet and resin, which was impermeable to the air. By the time the plaster upon the first was dry his temperature had fallen from 100° to 89½° — an hour later the thermometer showed a further diminution to 76° F. — another more carefully prepared the temperature was only 75° when the coating was dry, and in an hour from this

the animal died. These phenomena are opposed to what we should be led, prima facie, to suppose would be the result from such treatment. We should presume that instead of depressing the temperature, the impervious plaster, by impeding, if not destroying, pro tempore, the perspiratory function (whereby as we have seen the internal fires are greatly controlled) would have an opposite effect. But the perspiratory office performed by the skin is thus shown to be less essential to life than the Cutaneous Respiration, since the preceding experiments plainly prove the impossibility of maintaining life without the active performance of the latter function, at least in the cases of the lower animals.

We now approach the consideration of phenomena which seem to militate against the Chemical Theory of Animal Heat as herein contended for; and it must be confessed that there is difficulty in reconciling them with the doctrine that the generation and maintenance of Caloric depend exclusively upon the Combustive process established and sustained by the Respiratory function

aided in some degree, by the skin. We have reference to the important control which the nervous system has over the functions as demonstrated by experiments made by Sir Benjamin Brodie. He found that when the brain was cut off from the Spinal Cord, and respiration artificially sustained, the body cooled more rapidly than when, the cord being divided, no artificial respiration was practiced, altho' the quantity of Carbonic Acid given off in each case was the same. Other considerations, too, point to the same result; for example, in diseases in which nervous influence is withdrawn from any part we generally find the temperature depressed — we say generally because it is a remarkable fact that instead of universal depression, as would appear natural, actual augmentation is occasionally observed. Thus in hemiplegia particularly the paralyzed side has been known to exhibit a difference of from 2° to 6° as compared with the healthy side — the latter being the more exalted, whilst in other cases precisely the reverse has been observed. This phenomenon in Physiological science, in the present state

of knowledge, defies a satisfactory explanation; and we can only say, until more light is given us, that it is dependent upon some peculiar modification of the disturbing forces which we cannot as yet comprehend.

Some Physiologists have maintained that nervous influence is essential to the production of Heat, but that they is pushing its admitted agency much beyond its legitimate sphere is obvious from the single fact observed by Erch Bennett Dowler of New Orleans - viz. that in patients who died from yellow fever the temperature was found to have risen, in ten minutes after death, to 5° beyond the point indicated in health or ~~just~~ just previous to the dissolution. Again in opposition to this exclusive doctrine we have the fact before mentioned - the exceptional cases in which the temperature was found, in paralysed limbs, above that of the sound. From these considerations we seem justified in concluding that, nervous influence altho' conducive, is not, as some erroneously assert, essential to the production of Animal Heat and the regulation of

temperature. To account for the developement of heat thro' nervous influences, and to explain how this agency may be manifested, Dr Carpenter, keeping in view the relation between the Vital and Physical Forces* says:- "It can scarcely be doubted that nervous force, generated by molecular changes in the nervous substance, may manifest itself under the form of heat, just as we know it manifests itself (as in the Electric Fish) under that of Electricity". This hypothesis, the learned author thinks, will stand the test of future investigation, and in his opinion meets fairly and fully all the known facts and conditions of the case.

From a careful review of the whole subject and a fair consideration of all the facts we arrive at the following conclusions:- that the elevated temperature possessed by warm-blooded animals is an effect of the combustive process carried on in this system by means of the union of the Carbon supplied from the disintegrating tissues with the Oxygen from the atmosphere; and altho' Heat may be produced,

* Hum. Phys. chap iij - Sec. 2nd. p. 140

thro' the influence of the nervous system, and altho' this influence may contribute to facilitate directly the maintenance of the proper temperature yet there are opposing considerations too cogent to warrant the admission that animal Heat is essentially dependent upon nervous agency.

The query naturally suggests itself where does this combustion process take place? At what point in the organism do these Calorifying elements concentrate, unite, and kindle up, so to speak, the warming flame? From a superficial examination of the theory as herein advanced and discussed, one might be lead, to locate this Calorific process in the lungs since there the union must take place between the oxygen and Carbon. A moments reflection must be sufficient to remove such an idea; for if the combustion did occur in the lungs of course the temperature there must be greater than at any point remote from the great central Heat producer - but such is not the case the lungs being about equal in temperature to other organs - consequently the combustion cannot be more actively in operation there than elsewhere. Where then, it may be repeated, does the combustion process take place?

It is going on in every part of the body – at all times – it takes place in the capillaries where the arterial blood is en route for the venous trunks. The blood driven from the heart to the lungs, there absorbs Oxygen – is returned to the centre – an and sent thro' the arteries to every portion of the fabric, reaches the ultimate arterial ramifications and enters the capillaries. Finding the minutest quantity of Carbon the combustion ensues as previously remarked by means of the combination of Oxygen and Carbon, by which that warmth is generated necessary to sustain the functional activity of the animal economy.*

We have now brought to a close the remarks, imperfect and desultory tho' they be, upon the Evolution of Heat in the Animal Organism. It is not, of course, pretended that any thing new or original has been introduced, or that any additional light has been thrown upon a subject already bearing the impress of investigation stamped upon it by eminent Physiologists. We have only systematized and arranged the facts and theories gleaned from various sources, and have used them in such manner as seemed best adapted to the support and elucidation of the doctrine as contended for – the

* Fownes Chem. p. 506 – last Edition.

Chemical Theory of Animal Heat.

In tracing the varied and intricate operations of the human organization – the perfect adaptation of every function and organ to the accomplishment of its specific action – in observing how beautifully, how sublimely every part – existence is complicated with, we cannot but remark the expression of that divine, that Omnipotent Will – that Supreme, omniscient Intelligence by which man was "fearfully wonderfully created".

Baltimore, 14th. February 1856.

An Inaugural dissertation on
Rheumatism
Submitted to the examination,
of the
Trust, Regents and Faculty,
of
Physic of the
University of Maryland,
For the degree of
Doctor Medicine:
By
Francis M. Davis.
Maryland.

Rheumatism

In the long list of maladies to which the human family are liable, there is no one disease with which we so frequently meet in practice as Rheumatism. Known almost from the Creation of the world, and through successive ages until the present moment, one would be led to the conclusion, that, the true pathology of no affliction, was better understood, or its therapeutic indications more certainly, and successfully, fulfilled than it, but this is very far from being the fact, notwithstanding volumes upon volumes have been written, ably and eloquently, upon this bane disease, by Allopaths, the most capable, and learned of their age.

Never was there a disease ces=

-ficiency the pathology of which, the views and opinions of distin-
-guished writers have been more diametrically opposite, where greater contrariety and difference of opinions existed in regard to symptoms, and for the cure of which, remedies more opposite in their qualities and effects been administered,

Indeed, if, Empiricism ever existed in the science of Medicine, it probably had its origin in the treatment of this affection, and certainly, quite to a limited extent, at least, even in the present enlightened and exalted State of Medical knowledge

The opinion advanced by an Empiric writer, that each dis-
-ease has its thousand prescr-
-iptions, but not a single remedy, though undoubtedly,

nature, as a general rule might not, I think, be inapplicable to the present disease.

Certain it is, that too great a quantity of Quack medicine, specific, and nostrum have, to the disgrace of the profession, brought forward their claims, supported, and even insisted upon, by men stationed high in the rank of their profession, and from whom such conduct could not have been expected.

But at last, the day is not far distant, when Quackery will be buried with its founders, never again to be heard tell of.

Rheumatism is divided into acute, subacute, and chronic. Acute rheumatism, usually commences by attacking the extrem

ities, and gradually the lower, occasionally, the lower joints. The disease is characterized in some cases by stiffness and a sense of uneasiness; in others, the first symptom is violent and acute pain, afterwards, heat and swelling, come on, the latter being of a light, rose color, gradually shading off into that of the health skin; but in some cases this change of color is not so marked. The swelling is tense and elastic, and the slightest motion causes intense pain in the tumefied joints. This inflammation commencing thus has for itself, that very peculiar property of, in a word, or in scientific phraseology, arthritis, although strictly, it does not deserve the latter title as the inflammation does not include

subside, after leaving a joint, we may expect to find the inflammation leaving the ankle, and fixing the knee, or changing from one ankle, or knee, of one side, to the corresponding joints on the other. The swelling of the deserted joint does not immediately subside with the pain, but usually becomes softer, and instead of being firm, and elastic, will often feel somewhat superficial. Not unfrequently, a joint is attacked a second time, and occasionally a third, or fourth time, or even more frequently, before the disease ends.

In some cases, the inflammation is confined chiefly to the neighborhood of the joints; in others it affects, principally, the muscles, in others, again, both structures seem to suffer equally,

and indeed all the tissues; the whole limb being swollen, tense and extremely tender.

In the joints, the disease may be confined to the ligaments, it may affect, also, the synovial membranes. In the former case the swelling is firm and elastic, and in the latter, soft and fluctuating.

In severe cases, the pain is excruciating, and perhaps is only equalled by gout.

After these local symptoms, rigors and other evidences of constitutional disturbances manifest themselves, we have fever followed by increased frequency of pulse, heat of skin, furred tongue, anorexia, thirst, and occasionally headache.

The fever is of the sthenic character, and generally, out of all proportion to the local af-

fection. The pulse is full and strong, ranging from ninety, to a hundred and ten.
The respiration is not sensibly affected, while the disease confines itself to the extreme parts, but when some inflammation, it is slightly accelerated. The surface is generally warm, and covered with perspiration, which has a peculiar heat, and disagreeable smell, and has no effect in relieving the inflammation, or pain.—
The tongue is usually moist, and covered with a thick, white fur.—
Thirst is seldom severe, or troubling.
The bowels are generally constipated, and sometimes obstinately so.—
The secretions are little diminished, with the exception of the urine, which is scanty, and high colored, and deposits a substantial sediment upon cooling.—The brain is not disturbed.

affected, though there may be delirium without the slight of suspicion of cerebral inflammation.
The fever is remittent, in the exacerbation, in the evening, which is often accompanied with an increase of pain.— These are worse at night, and delay until the fever in the morning. The disease may often run its course, and nothing more serious than what has been described above, takes place, but other complications of another character supervene, such as endocarditis, and pneumonitis, which complaints I still have, occurred in twenty one, out of forty three, but this certainly is a large proportion to occur in this country, probably from the fact that active treatment is instituted early.—
The cardiac disease, usually recovers, the valves, and leaves behind

dry. The endocarditis is much more frequent than the pericarditis, for the latter occurred, only in five of the twenty one, that had cardiac disease. But when the latter occurs, it is very apt to be associated with the former.—

Pericarditis is more immediately dangerous; endocarditis leaves the most permanent effects behind it. The pericarditis is apt to end together in the same disease, and the patient recovers, and no disagreeable consequences follow.

The latter, is usually followed by hypertrophy, dilitation, and ultimately, by death.

This complication, is one of extreme danger, and should the chief of my experience, during the period of my practice. But that cardiac disease tends to almost

[illegible] always be on our guard, and suspicion its existence, when there is pain or pressure, in the precordial region, difficult, and [illegible] breathing, [illegible] without cough, palpitation, [illegible] fainting of [illegible], and [illegible] lividness, distress, or [illegible] expression of countenance.

The Cardiac disease, may indeed occur, without any of the symptoms, mentioned, i.e. a [illegible], and to the [illegible] appearance, and [illegible] apparent, leaves no doubt. [illegible] the [illegible] stories, [illegible] in [illegible], it is [illegible] [illegible] than the same [illegible] seated in the [illegible] Membranes. Children are much more liable to Cardiac Complications, than adults.

Pleurisy is the next most frequent
Complication of the rheumatism, and
appears to be in most cases, merely
an extension of the Cardiac disease,
and occurs simultaneously with it.—
The pleurisies, does not appear to
differ from the idiopathic disease.—
Rheumatic encephalitis, which
next is frequency, and is charac-
-terized by pain in the head,
intolerance of light, or sound,
delirium, and Coma.—
The disease affects, principally,
the membranes of the brain,
but irritation is able commu-
-nicated to the Cerebral substance
itself.— Some have supposed,
that the cerebral inflammation
depends on the Cardiac, but
the truth appears to be, that,
the both arise from one com-
-mon cause—
The peritoneum is sometimes,

but equally affected, the left side of the attack, and intermittent fever from the inherent poison.

A variety of rheumatism, dependent [illegible], has been observed in miasmatic regions, arising from the transfer of the poison to the initiation of the disease.—

This form of the disease, partakes, however, with its own peculiar phenomena, of the bilious symptoms, and periodical character of intermittent, and remittent fever.—

Rheumatism is sometimes chronic, by diminishing force, and frequency of pulse, copious sweats during sleep, a feeling of great debility, and more than ordinary tendency to metastasis.—

The ordinary duration of acute rheumatism, is from one to two weeks; but sometimes it con-

on for six weeks, or four or five months. The disease ter=
=minates, by a diminution of swe=
=lling, and a disappearance of, fever, and pain, the morbid sensibility vanishes, and the joint activity recovers, or not unfrequently, after the fever has gone, the acute decomposition into the chronic rheumatism.
The blood of a patient, suffering from acute rheumatism, contains a large proportion of fibrin. Andral & Gavarret, found ten parts in one thousand.—
Dr Garrod found no more lactic acid in the blood of acute rheumatism than in health.
After death the synovial mem=
=branes, have been found red, and thick, and the liquid in the cavities, is increased without much change. In some instances,

pus has been found in the joints, more rarely false membranes, and albuminous flocculi.—
The cartilages are often inflamed, the muscles are of a dark red color, and softened, and there is an effusion of bloody serum into the cellular tissue.—
The exciting cause of acute rheumatism, is cold, refined with moisture.— There must be a rheumatic diathesis. In what this consists, has not been discovered.—
Large joints, muscular, and bank fibrous, seem to suffer, more than the opposite structures.
Men are more subject to this disease than women.— Age seems to affect the susceptibility, as children under ten, and adults over sixty, are seldom attacked.
The most powerful predisposing cause, is, a previous attack;

The predisposing cause, is often inherited. Exhibit appears favor the predisposition, though full and vigorous health, does not afford protection.—
Gout is the only disease, with which, acute Rheumatism, can be confounded, and it is distinguished by the following symptoms.—
Gout is more frequently hereditary, and much less frequently generated by obvious causes, than rheumatism.—
Gout never attacks children, under puberty.—
Gout usually attacks the rich, and those of indolent habits, and Rheumatism the reverse.—
Acute Rheumatism, though a painful disease, seldom proves fatal and its progress, managed, rarely leaves any serious effect behind.
Subacute rheumatism, is intermediate, between acute and

Chronic, and is characterized by the limited extent which it occupies in most cases, and by being less in duration than Chronic Rheumatism, and by not being attended by similar constitutional disturbances. —

The disease may be seated either in the muscles, or joints, most frequently in the former. —

The symptoms are pain, heat, and swelling of the joints, but not so great as in the acute variety. — When the muscles are attacked, there are at first some which gradually increases, until it amounts to a dull aching pain, which becomes acute, when the muscles are called into action.

In other cases the disease commences by acute pain in the muscles, when for any reason they are called into action. —

Giving the idea of motion there is usually a sense of tingling, or aching with increased heat, and the parts are more or less tender when pressed.—
The pulse is frequent, excited, and the general heat increased, but the constitutional disturbance seldom amounts to fever.
This variety of rheumatism appears not to be confined to any one or two tissues, but seems to affect them all, and is not at all permanently fixed, but is liable to fly from one part to another, and often affect most any tissue in the body. — Subacute rheumatism affects the muscles and fibrous tissues of the eye, and in the first instance, every motion gives pain, and when the rheumatic siezes the fibrous coat, the eye is sore upon pressure; and the

is considerable difficulty in distinguishing rheumatism from radiant inflammation except by taking into consideration the constitutional tendencies of the patient, and the state of his system at the time. The rheumatism is also located in the scalp, face, neck, and in the joints of the chest, and abdomen. The subacute form of this disease affects more frequently the muscular structure of the heart, than the acute, and produces according to its severity immediate death. The kidneys, and liver sometimes suffer, in the first case there is pain in the back, extending to the abdomen, and shooting to the groins, and sometimes contraction of the testicles. And in the latter case there is pain in the right hypochondrium, after a jaundiced hue of the skin,

and sometimes bilious vomiting or melaena.—
The oesophagus, stomach, intestines pleura, uterus, ovaries, testicles and even the skin sometimes suffer this variety of rheumatism.—
But the most frequent varieties are lumbago and sciatica.—
In lumbago the pain occupies the loins, and extending up the spine, sometimes shooting round to the abdomen.—
The pain confines the patient to bed, and usually to one position, the patient suffers extremely when he attempts to rise.
Lumbago may be dangerous by irritation, the urinary passages, and the nausea and vomiting, which accompany the disease.
Sciatica is frequently seated in the sciatic nerve, but may also affect to some extent, the muscles

and fibrous structures of the thigh, it is characterized by tenderness and pain in the sciatic nerve.— The simultaneous occurrence, or previous existence of rheumatism in other parts is the surest diagnostic sign of this affection, from neuralgic and inflammatory pains. The duration of subacute rheumatism is exceedingly uncertain, and depends, equally upon the treatment.— It is often relieved in two or three days, and sometimes runs on for weeks, or months if neglected.— In the latter case, however, it degenerates into the chronic form.— It is more readily subdued than the acute, though more prone apt to return.—

The causes are the same as the acute.

Prognosis. This form of rheumatism is almost always functional, except when it sieges upon the

brain, stomach, heart, & the spine = is enlarged & that rheumatic chronic rheumatism;— This variety of rheumatism is located in the fibrous, synovial, or muscular tissues, but most frequently in the joints.— It may occur either as an original affection, or as the consequence of an acute or sub = acute attack.

In this variety of rheumatism the swelling is not very great, except the synovial membranes be affected, when there is tumefaction from the effused fluid.—

In old cases, however, the ligaments are often thickened, and there is a effusion into the cellular tis = sue.— The pain is sometimes considerable at times, not very troublesome, except in damp and chilly weather, when the rheumatic pains is an almost infallible

weather cock, the stiff and weak joints being the barometers. Redness is not usually present, the patient feels the chill, but sensations in the part affected.— There is generally complete absence of fever, in chronic rheumatism, but in some cases in which disorganization of the joints has taken place, with frequent se= =cretion, and ulceration in consequence, probably, of the development of common or scrofulous inflammation, In old cases there is immobility of the joints, in consequence of contraction of the ligaments and muscles.—

Not unfrequently in cases of long standing, the muscles affe= =cted become almost powerless or even quite paralyzed.—

The disease may generally be relieved or cured for a time, but is ex=

-ticularly liable to Chronic Rheu-
-matism, but are seldom attacked
by the gout.
It may be confounded with
fearful inflammation, and from
-ter; possibly paralysis of cer-
-tain muscles.—

Treatment.

The treatment of gouty rheum-
-atism.— When the pulse is full
and tense, and with inflammation,
bleeding should be freely employed.
It is never proper to bleed for
pain alone, though it be severe.—
The pulse and the circumstances
-ance of local disease indicate
-ted by the heat, swelling, ten
-sion, and redness, are much surer
guides than the degree of pain.—
The loss of blood is generally
beneficial; and the operation
should be repeated, if necessary,

= cudinal left to atrophy.
In some cases it perseveres in spite of remedies, and terminates the patient with incessant pain.
In some cases inflammation takes place in the joints the synovial membranes ulcerate, and the patient is at last worn out by hectic fever; or the denuded end of the bone granulates, and unites, forming a complete anchylosis.—
The duration of chronic rheumatism is altogether irregular.—
It may continue for months, or years.— Many persons are affected, have intervals of comparative comfort, according their health more or less during summer, to relapse again in winter, or even with the weather.—
The cause of this form of rheumatism is the same as that of the acute.— The old are par-

The quantity taken must depend upon the effect produced upon the circulation.—
The orifice should be closed as soon as the pulse begins to fall. When bleeding to faint, cases may be taken from a robust person, with a full pulse.— One or two pints plenty, usually sufficient.
Let bleeding alone does not always cure the disease, and if carried too far, may cause the vessel to collapse, so that they will not be able to support the inflammatory process.—
Purging is probably not less efficacious than venesection.—
The purgatives should be active, but not drastic.— Some, with sulphate of Magnesia, jalap and bitartrate of potassa; and when there is torpor or congestion of the liver, calomel alone, or in

Combination, are generally suitable articles to begin with.
These should be repeated every other day; but after the first, or second occasion, will usually suffice. — Nitrate of magnesia and bicarbonate, is recommended by Hudemann.
Should the bowels become irregular, the purgatives should be substituted. — In irregular diarrhoeas we will adapt to the earliest, and most inflammatory stage. Carbo animalis and Nitrum are excellent combination, from the twelfth to the sixth dilution of the former, and from five to ten grains of the latter, dissolved in water, and given from one, two or three hours.
If the tumor should affect the stomach, calcareous phosphate may be used. — These remedies may

be aided by a warm bath.
The object in the use of diaphoretics is not so much to induce perspiration, as to sustain a moderate relative impression upon the circulation.—
Very soon after the commencement of the disease, the bowels having been thoroughly evacuated, and blood, if deemed advisable, taken from the arm, opium and ipecacuanha should be given at bed time, to allay the violence of the pain, and procure sleep. A grain of each, if necessary, should be given every two hours.—
To keep the system under the influence, ten grains of Dovers powders should be given every four, six, or eight hours, according to the influence produced by its diaphoretic effect.
When the pulse has lost its

tension, but especially if it be feeble, we will gain advantage by combining guaiac with Dovers powders. —
Should these remedies fail to give their desired effect, at the end of one or two weeks, it will be advisable to use Calomel, with a view, to its alterative influence. — Advantage will often accrue from its use at an earlier periods combined with opium and ipecacuanha, in the doses of two grains at bed time. This will sometimes, of itself, develope a favourable influence without positive salivation, which it prepares the way for the very decided influence of Mercury upon the mouth. — I have no doubt of the frequent controlling influence of mercury over this stage of acute rheumatism, if employed

before the requisite reduction of the general excitement, it may fail to remove the disease, while it adds to the inconvenience of a sore mouth, and to the excitement of additional one, produced by Mercury.—

If the case should be in an advanced state, when first seen, the treatment of Calomel and opium, may be commenced immediately.—

The symptoms generally abate, on the occurrence of sore gums.—

It is seldom desirable to induce a copious salivation.— It is in this stage that Colchicum produces most effectually its benefits.

It is usually best combined with one of the salts of Ammonia.—

In case of profuse night sweats, quinine in the grain doses, should be given every hour.—

More than this is seldom required.—

Should the heart, or brain become severely affected in the course of the disease, depletion by the lancet should be carried as far as can be borne; leeches, or cups must then be used; followed by blisters. In cerebral affections, the cups should be applied between the shoulders, and the blister over the heart; in the cerebral, the head should be shaved, and leeches applied to the scalp, and temples, and the symptoms continuing, blisters should be applied over the whole head, and calomel given freely, should salivation. In this stage of the disease, but little local treatment is required. We derive but little good from external applications. Should the disease be confined to any one part, leeches should be applied, the part should be subjected to flannel, or carded cotton; the brain may be

relieved by calomel, with the addition of laudanum. — In the decline of the disease, if still swollen and painful, but the fever subsided, anodyne and rubefacient lotions are useful; such as camphor liniment, and camphorated tincture of soap with laudanum. — At a little more advanced stage, and when the joints threaten to become chronic, repeated blisters are the most effectual remedies; if the pain be great, a bottle of morphia in chloroform may be sprinkled upon the blistered surface. — Warm baths are useful after the fever and inflammation has subsided.

Old, slow acute rheumatism.

In this variety bleeding is seldom requisite, except when the patient is robust, and the pulse strong, then bleeding may occasionally hasten the cure. — Tonics are highly useful; a full dose of Bark.

with a sufficient infusion of senna, followed every day with a tea-cup of Magnesia & Epsom Salts and Calomel of Calcium. Should the patient fail to work to prompt this course, his bowels may be kept open by Sulphur, or Sulphur and Magnesia. After the bowels have been thoroughly evacuated, Opium & Ipecacuanha may be given, either in Pills or Vial of Cough Powders. This sometimes puts almost an immediate end to this form of the disease. A large dose of the opiate may be given at bed time, and another at regular intervals of four, six, or eight hours. Calomel, also acts very strongly in this manner in this disease. It may be given blood in doses of twenty drops of the tincture, repeated as fever rises, increased or diminished according to the effects. The pain

advantage by combining it with Sulphate of Morphia so as to keep the patient under a moderate narcotic influence.

Should the patient have a foul breath, or should his urine exhibit an excess of lithic acid, the alkaline remedies may be added, especially Bicarbonate of potassa, or of soda.—

In obstinate cases we resort to belladonna, stramonium and Conium, severally, or variously combined, sometimes effect a cure.—

We use Mercury in those cases only where the disease is verging towards the chronic form, and threatening, if not arrested, to be a lasting inconvenience.—

Local treatment.—

When the infl=

-ammation is confined to and fixed, as in lumbago and Pleu-
-rodynia; Cups or leeches are often useful; and may be freely applied.— If the affection can be traced to the spinal column, blood should not be taken from the seat of pain, but the im-
-mediate vicinity or the tender spot in the spine; and in the same case we should use rubi-
-facients.— The affected part should be kept covered with flannel or cotton, flannel should always be kept next to the skin.— Anodyne applications are also frequently useful.

Of the Chronic Rheumatism.— An immense variety of remedies have been employed in this dis-
-ease, and many of which are quite useless. There is no bone which seems to work in

obstinate cases as required. It will succeed in curing the disease at least for a time, in a great majority of instances. In mild diseases, moderate use of the remedy is required, but in cases of long standing, it will require perseverence for two or three weeks, of decided action, to effect a cure. General bleeding should seldom be resorted to. Purging is sometimes of great use, and should depend upon the degree of action of the local affection and the strength of the patient. If the disease be in one of the large joints, and be apprehension from relief, a dose of jalap and cream of tartar may be given twice a week, for a long time. During this plan of treatment, if the patient has much pain, he may take Dover's powders per night. At the same time, he may take during the day, one of these

medicines which have proved useful in Rheumatism have suffered alterative action. Of these, Colchicum is one of the most efficient; and may be given three or four times a day, within the nauseating or purging point. — Various Diaphoretics are often useful, especially when the disease is very painful, and somewhat neuralgic. — The external application of belladonna, Stramonium, Conium and Aconite are the principal ones. — Various baths are also beneficial, such as the hot baths, sulphur and sea baths. Long journeys and change of climate from cold to hot, are also useful. —

A Clinical Report
of Six Cases.

Submitted to the consideration
of the
Regents, Provost, and Faculty of Medicine
of the
University of Maryland.

For the Degree of
Doctor of Medicine
By
Joseph W. Steele,
of
Maryland.
1856

Case 1st

Adherent Placenta one Hour after Extraction, attended with Hemorrhage.

During a visit to the country, I had an opportunity of attending a case, in connection with my friend (Dr. Dunford) of considerable interest & rarity. It occurred in the person, of Mrs Wells, a married lady, aged 29 years, of a strong vigorous constitution, light hair, blue eyes, fair complexion, the mother of five children. She stated, her previous labours had been of short duration, and unattended with unpleasant consequences. August 12th 1854, was taken with labour pains about 6 O'C. P.M. and was delivered of a fine boy about three hours after. My friend was sent for about 12 O'C. that night, and was informed she had lost a large quantity of blood, and the Placenta had not yet

been delivered. He found her much exhausted, pulse 130, pinched & fixed in blanched complexion, and some coldness of extremities. Her after-pains, she said, had been few, irregular, & of little force. A vaginal examination was made, & it found cold & moist, but unable to reach the Placenta; a small quantity of blood was lost during the examination.

The abdomen was pendulous, and the Uterus appeared somewhat contracted, though it occupied a large portion of the Epigastric region. It contracted slightly upon employing friction over the abdomen, and on placing the two fingers within the Uterus upon its walls. Supposing the non expulsion of the Placenta to depend upon inertia, consequent upon the loss of blood, we did not attempt a thorough examination, considering that as some reaction was established, the pains of the mother would be sufficient to expel it

℞. Brandy ℥ss, Tinc. Opii gtts x. M.
To be given every half-hour.

After waiting two hours and having no rest with him, I was sent for and arrived about 2½ o'clock A.M. Aug. 13th/54. I found her pulse much accelerated & weak, but was told she had improved considerably under the stimuli.

The abdomen was much relaxed & I could trace the uterus occupying the hypogastric region, its fundus reaching within five inches of the umbilicus. The vagina was moist and cold, so removing proper two fingers within the os uteri, which was fully dilated, but could not reach the placenta. She vomited other more thoroughly latter ex with blood and one or two pints, some 12 & 15 ℥ had been lost. It was now 5½ hours since the delivery of the child. Judging that the longer pressure

of the Placenta would further [illegible]
to the [illegible] of the [illegible]
sist of hemorrhage; and as no [illegible]
pains had occurred of sufficient [illegible]
to expel it; and as its presence was insuff-
icient of itself to produce expulsive pains,
and supposing as no further hemorrhage
had occurred, the Uterus might have
contracted upon it, thereby preventing
its delivery, we deemed it expedient to
forcibly extract it. The operation was
left to me, Dr. Egert Grove was
now given her, and introducing my
hand in the Uterus & following the
course of the cord, I found an
unusual [illegible] formation. Viz, the Uterus
consisted of two chambers, the lower
of which was formed by the cervix
uteri, greatly inverted. Half of the body
of the Uterus; the upper, the remaining
superior portion, & fundus; the con-
striction being about two-thirds from
the O.S. The lower chamber was the

deeper and [illegible] the [illegible] portion
lent within the true pelvis. [illegible]
[illegible]
above the true pelvis, being [illegible]
in the iliac or false pelvis. A
small portion of the placenta, near
the attachment of the chord, from
whence the hemorrhage must have
proceeded, occupied the lower chamber,
while just above this it was
grasped by the contraction and tightly
encysted.

I endeavored by pulling on the cord,
and grasping the portion within
reach [illegible] to remove it, but
found this impossible. The pressure
of my hand in [illegible] gave
her much pain, but did not cause
it to contract or produce hemorrhage.
During the examination [illegible]
[illegible] was in. The lower lip
of the cervix was so strong, that it
was with difficulty, I succeeded

in introducing [illegible] finger, on [illegible]
the constriction. The [illegible] becoming
weak and fatigued from the exertion
I withdrew it, & my friend continu-
ed the examination. He after
some labour passed four of his fin-
gers beyond the constriction and suc-
ceeded in partially overcoming it.
Brandy & Opium were continued, and
fortunately as it afterward happened,
the [illegible] failed to act. Reintroducing
my hand, and passing my [illegible]
beyond the constriction I found on
the Placenta with the exception of
a small part of the Umbilical Inser-
tion, previously mentioned, firmly
and adherent to the whole surface
of the fundus Uteri, which con-
tributed to effect it [illegible], as the
examination caused her great suffering
and added to her previous prostra-
tion. Having a small sack to work
in I found its removal to be

attendance [illegible] [illegible]
[illegible] after, [illegible] [illegible]
labour; [illegible] working, [illegible] [illegible]
index finger, and the [illegible] [illegible]
finger, and sometimes [illegible] [illegible]
with it, in feeding or off, and
removing it, which latter operation
was materially assisted, by a strong
firm contraction of the Uterus. A
few clots of blood were now expelled
with it, but beyond this, no further
hemorrhage ensued. The Uterus read-
ily contracted after the removal
of the Placenta, and a firm ban-
dage was immediately applied around
the abdomen, with wet clothes to
the latter. The patient thereupon
weak seemed much relieved and
since [illegible] XXX [illegible] [illegible]
The Placenta was remarkably free
from [illegible] [illegible]
was much lacerated, with small
portions here & there deficient,

which [illegible]

[illegible]

The patient [illegible] during that day; with two hours [illegible], quietly composed. Fearing that the epileptic fits might set in [illegible] the patient passed through a quiet night in composition within the Uterus be indicative of hysteric symptoms, though strict rest was enjoined, and the diet of the plainest and most unstimulating kind.

A purgative dose of Magnesia Sulph. was given, which results well upon her bowels. & Liq. Opii, gtt x were ordered to be given, once every hour during the day & night. August 14th alone improvement was visible in her pulse, complexion & appetite. The lochial discharge made its appearance in the usual quantity. After this, have no opportunity of observing the case since cleared, the patient recovered.

Case I.

Pleuro Pneumonia.

Francis Strasburg, Aged 25 years, Native of Germany, a resident of this country ten years, occupy [illegible] Gardener, was admitted in Alms-House Hospital in the night of May 3rd 1854. His eye [illegible] the sphere, [illegible] blue eyes, [illegible] dentiment of [illegible] his [illegible]. His previous health had been good, was taken sick May 2d from exposure to a shower of rain, felt feverish, had a cough, with a sharp pain in the right side, with dyspnoea. Had no chills but little of reaction. His condition on admission was, pulse 112, respiration 54, tongue [illegible] coated with white fur, except at the end and edges, which were red, and moist. [illegible] from increased [illegible] ing to lay on left side. Bowels [illegible] fined. Urine scanty and thick [illegible]

No appetite, Thirst urgent. Urine scanty. Lies left side throughout, elicited a clear sound. His right lung from apex, down to about the third rib, also elicited a clear sound but not full. Proceeding downwards a clear tympanitic sound was discovered, commencing at the free edge of the diaphragm and extending to the base of the lung. Anteriorly under the clavicle both lungs were clear.

Auscultation. Discovered hypervesicular respiration throughout the left lung. In the lower portion of the right lung, the respiration murmur was superseded by bronchial respiration, which became very clear, when the patient was directed to cough. Placing the hand upon the chest and directing the patient to speak, a distinct vibration was communicated to the left hand; but

Bone [illegible] the right lung, respiration was hyperbronchular. Inspection discovered the intercostal spaces bulging out, & on measuring the chest, a difference of one inch was in favor of the right side. The chest of left side did not expand on full inspiration. On listening to the heart its sounds were unusually loud & prolonged, not at all in accordance with the pulsation at the wrist, and were distinctly audible for some distance.

Ordered. ℞

Hydrocyanic Acid [illegible]
Prussic Ether [illegible]
[illegible]

Dec. 4 [illegible] 3. [illegible] hours.
Obey 30th 10 O'clock A.M. Pulse 164, [illegible] 54, [illegible] quent, weak, & compressible. [illegible] and [illegible] somewhat hard.
A twist ligature was then [illegible]

Mucous membrane of the [illegible]
and about his lips there was a slight
lividity, [illegible] [illegible]
same. Expectorated several times
[illegible] [illegible] [illegible]
expectoration was [illegible] [illegible]
He passed a very restless night, had
taken three boluses, which created
some nausea. He at this period
could rest on either side or
his back, but preferred sitting up.

℞. Inf. Senegal. ℥j
Ammoniac Carb. ʒij

M. & Sol. S. Every [illegible] hours.
Blisters, [illegible] every 4 hours.
The expectoration, [illegible] [illegible]
symptoms rapidly increased. The blisters
and [illegible] Brandy and Carb. Ammonia
were ordered in large and frequent
doses, the vital strength had [illegible]
too low to be recognized, and he
shortly relinquished his life on the [illegible]
[illegible] at 4½ o'clock P.M.

Autopsy, [illegible] cadaveric rigidity of the upper and middle considerable of the lower. All depending portion of the trachea reddened. Abdomen distended with gas. On the right side of the chest the pleura adherent by recent adhesions and easily broken down. Considerable effusion in pleural sack. The lung was covered over by recent lymph. Posterior and inferior portion of right lung, was of a dull grayish color, impenetrable to air except near the edges. The middle lobe in same state. The upper lobe, of a dull black color, and crepitant under touch. The inferior lobe in 3rd stage of pneumonia. In the upper part of middle lobe, towards its edge, there was a spot 3 in. square of healthy tissue. Same portion of middle lobe of right lung, going into third stage.

The lung was [illegible]
and great cadaveric [illegible]
[illegible]. [illegible]
expiratory dilatation of the right side
[illegible] of the heart, [illegible]
[illegible] of regurgitated blood.
Attention during life was not directed
particularly to the heart as his other
symptoms seemed sufficient to fully
account for the extent of his disease.

Case 3

Amputation.

Jane Anderson, married, Aged 30 years. Entered Hospital May 24th 1854. She was of scrofulous diathesis, emaciated in appearance, dry cough, &c. Had a large ulcer, covering more than half, the lower portion of the Tibia, with thickened edges. Under use, and liver oil gr 3ss. daily, Anodyne expectorants, & poultices applied to the ulcer. The tuberculous cough was not materially changed, for some time, as it appeared improved by the use of the oil. During the month of August, the ulcer again assumed an unhealthy appearance, & was spreading rapidly; had penetrated nearly to the bone, to which were some fistulous openings; which on being probed, showed extensive caries of Tibia. The ulcer was exceedingly painful, and discharged very copiously fetid pus. This state of affairs during rest for some weeks

He lie [illegible] in it [illegible] to [illegible] ed to [illegible] [illegible] on the 10th September. The tumor was removed by Dr. H. Edwards, assisted by Drs. Stedman & the house. The flap operation was adopted & the limb removed, just below the insertion of the ligament of the Patella. The hernia sac was slit & excised, & Nelaton's method, the condition of the tissues of the stump, [illegible] pale, flabby, & infiltrated with [illegible], it healed by the first intention, for nearly the whole length of the incision, in two weeks, there having remained [illegible] a slight suppuration at the point of the bone, which [illegible] granulated, & closed in about two weeks more. Just previous to the operation, the pulse was 150 per minute. The operation was performed whilst the patient was under the influence of Chloroform.

After the operation, the pulse were never higher than 120, & from that point came down to the health standard in a short time. There was little, or no, constitutional disturbance, and the recovery was very rapid under the use of tonic fever pill.

Case 4

Puerperal Fever.

Mary McDonald, aged 22 years, strong & stout, a native of Ireland, but recently arrived in this country. Was admitted in the Hospital, March 9th 1854, being at the time upon the eve of confinement. Had but one day in Baltimore, and arrived there after, one days journey from New York. Was compelled to walk out, on the night of the 8th being unable to obtain lodgings. Was in labour pains on arriving at the house, and was immediately transferred to the Lying-in Ward. Dr Fielde the attending Physician made a per vaginal examination, and discovered the bag of waters ruptured, and the head of the child in the first position. The pains were severe, and continued so, for a period of four hours, the head not having yet presented.

Dr. Field, with the [illegible]
head of the child [illegible]
applied the forceps, [illegible]
the time spent, she [illegible]
a dead child. The [illegible]
covered to be firmly twisted around
the child's head, [illegible] high in.
The forceps, as was afterwards ascer-
tained by both contingencies, injured,
neither the soft parts of the mother
or child. The Placenta was ex-
pelled shortly after, and the Uterus
contracted well. [illegible]

[illegible]
[illegible]
[illegible]

Dr. W. Dr. J. S. Patten at once.
She continued doing well until
next morning, when the complaints
of the first patient [illegible]
[illegible], was ordered. In the morning of
March 11th, she [illegible] from a
tense pain over the hypogastric re-
gion. Pain intermittent, respiration 52,

Tongue [illegible]

Extract [illegible] 253 [illegible]

℞ [illegible]

[illegible]

[illegible]

℞. [illegible]

This treatment was [illegible] 14 hours after the first symptoms mani-fested themselves. March 11th, 5 o'clock P.M. Pulse 142 very weak, also respiration; intense pain in the abdomen, much tympanitis, causing great dis-tress. [illegible] fomentations to be constantly applied to the ab-domen. Warm injections of milk & water in vagina. 6 o'clock P.M.

℞. [illegible]

Ricini ℥ss

Mist. Acaciae ℥ij

M. [illegible] immediately.

8 o'c. P.M. Pulse 150 irritable, respiration 54, complaining of pain and thirst, 8 ounces intense pain

Form distention of [illegible]
Pv, Ol. Terebin. [illegible] ℥ij
Ipec, [illegible] ℥ss
Pulv, Aromat. ℥ij

M-ft. Enema, 3, use at once.

Increased dose of Opium; so that each dose contained ℥ss. ij. 11 O.C. P.M. Condition much the same, the pain is becoming intermittent, Pulse 132 16.6. A.M. Pulse 132 very weak, tongue dry, and not so much coated. Symptoms less, complained of little pain, had a small evacuation, respiration 36. Discontinued the Spirits, continued the Calomel & Opium. Stomach not yet returned. Pulse [illegible] rested well after 12 O.C. the night previous. 11 O.C. A.M. says she has no pain. Symptoms less. Pulse 140. very weak. Continue Brandy in small doses with wine as key. Respiration 36. Countenance not so anxious. 12 O.C. P.M. Pulse 150 very weak.

Stomach irritable, and throws off every-
thing. Extremities becoming cold.
Respiration same. 3 o'clock P.M. Pulse
120, scarcely appreciable. Extremities cold.
Stomach still irritable. Respiration
hurried, has no pain, intellect good.
9 o'clock P.M. Pulse inappreciable. Con-
dition the same. Pain in abdomen
returning. Sinking very rapidly. Remov-
ed the Brandy. 10 o'clock P.M. Condition
as usual. Has subsultus tendinum,
vomiting very frequently. Passes her
feces in bed. Pain very intense.
Some hot stimulants, has not slept
any. 11 o'clock P.M. [illegible]
An attempt was made [illegible]
irritability of stomach by having me
[illegible] but without effect. At
this time sank very rapidly, the irri-
tability of stomach still persisting.
She died, 4 o'clock A.M. [illegible]
her intellect [illegible]
last moment.

Autopsy. [illegible] Height about 5 ft 3 in. [illegible] and separating [illegible] examined, [illegible] filled with [illegible] of a sero purulent fluid with flakes of lymph. Stomach & intestines [illegible] filled with gas, the [illegible] bowels [illegible] with blood, also the intestines, the convolutions of the intestines were glued together by recent adhesions and easily separated. The peritoneal sac contained about two quarts of sero purulent fluid with flakes of lymph

The Uterus about [illegible]
of a child's head, [illegible]
The walls near the [illegible]
1½ inches thick [illegible]
Emitting into it, at [illegible]
dark red shot [illegible]
Dilating the [illegible]
of the Placenta. [illegible]
Uterus about the [illegible]
[illegible] and very offensive. The Middle [illegible]
Uterus, of a [illegible] reddish color, from
suppuration. [illegible]
over the Uterus was caught from
inflammation [illegible] The
Ovaries was not, the [illegible]
tubes were [illegible]
Abdominal [illegible]
from inflammation. No evidence
of any disease of the Uterine
Vessels. The sides of the Vagina
were [illegible]

Case 5th

Endo-Pericarditis

Mary Springler, German, Aged 22 years, had been in this country six months. Entered Almshouse Hospital March 1st/54. Had been sick two weeks before entering; was not confined, having never been sick before this attack. When she entered she got off the car at St. Matthews Rd. House, on foot; she was in complete exhaustion of her tenacity; respiration hurried; hot, pain and rapid. By percussion dullness over the inferior & posterior lobe of the lungs; transmitted respiration distinct. Was treated for Pneumonia, under which she gradually recovered, when she was transfered to S. W. on account of Gonorrhoea, a day or two previous to the change of Wards, when she fell to my charge.

May 9th on taking charge of this patient, she was found in the following condition, face flushed, hair

120 quick & irritable. [illegible]
dullness over the cardiac region [illegible]
space of five inches [illegible]
three transverse [illegible]
heart [illegible] at the apex [illegible]
Auscultation: [illegible] cardiac
sound; distinct pericardial friction
sound preceding and following the
impulse between the third and fourth
ribs, on the left side of the sternum.
Diagnosis. Endo-Pericarditis, with effusion in lower half of the pericardium.
Ordered ℞ Sodae Bicarb, ʒij.
Acid Hydrocy, ♏xx
Mucil, ℥j, Ac: ℥viij
M, ft. Solutio. S- ℥ss every [illegible]
to quiet the action [illegible]
Blister over the [illegible] to
the left of it. No [illegible]
[illegible] since the [illegible].
The pericardiac friction sound has
gradually decreased, leaving a clear
soft, bellows murmur at the base.

of the heart, [illegible]
sound and [illegible] the [illegible], high
fever & [illegible] pain.
13th applied [illegible]
and blistered

℞ Hydrag. chloride, grs x ij
Ext. Hyoscyam. grs x ij
Ext. Conii, grs x ij
Pulv. Opii, gr ij

M ft. Pills x ij. S. One [illegible]
to be administered [illegible] loss of bile.
[illegible] been [illegible] the bowels
and continued the fever until
the 17th or 18th, when her mouth being
touched, it was suspended.
May 20th, When examined the bellows
murmur was [illegible] at the apex of
the heart, and [illegible] pulsation
around heart [illegible] the left side
near the [illegible]
on her back. respiration 36, pulse 102,
somewhat irritable, [illegible] complexion,
[illegible] tongue, has a wide [illegible]

[illegible] mouth. [illegible] to augmented [illegible] the [illegible] quite perceptible [illegible] to communicate [illegible] hand [illegible] [illegible] is [illegible] that the [illegible] is becoming [illegible], [illegible] and blister. 1 Mar. 21st, Pulse small and occasionally intermittent. Respiration 48. Blister drew well. Sounds as yesterday. Continued treatment. Mar. 22d, [illegible] last night [illegible] Symptoms unchanged.

1 Mar. 23d, [illegible] sounds [illegible]. 1 Mar. 26th, Pulse 106, feeble, and a little irregular; has some rheumatic affection of the joints of the left arm and hand; action of the heart laborious and tumultuous; bellows murmur more evident and friction more indistinct. Extent of dullness

On perceptible improvement.

Nov. 30th, 6 a.m. Yesterday, [illegible]
[illegible] but as [illegible]
rheumatic pains, I [illegible]
more [illegible] time [illegible]
this day, [illegible] and [illegible]
[illegible]. Sounds continue.

Since the little relief given by the
[illegible] of the joints of the left arm,
[illegible] the [illegible] pains
signs [illegible], I applied the
colchicum on account of some
disturbance of the bowels, and [illegible]
Quinia [illegible]
and a [illegible] of [illegible].
The pains [illegible] to me at
6 P.M. to day, [illegible] the [illegible]
[illegible] and [illegible] pains, [illegible]
[illegible] and [illegible],
I [illegible] [illegible] [illegible]
[illegible]. Since 8 P.M. complained last
night of constipation [illegible]

She was admitted [illegible]
This Morning [illegible]
in the [illegible]
a sinapism [illegible]
food [illegible]
last date [illegible]
in [illegible]
sounds have [illegible]
the aortic regurgitant murmur
clear and distinct. She now sits
about and suffers little exertion
making [illegible] or violent exertion,
when palpitation comes on which is
often [illegible]
to [illegible]
[illegible]

Case 6th

Apoplexy.

[illegible] 74 years, Native of [illegible], [illegible] 22 years in the U. States, Occupation Laborer. Admitted in Arkansas Feb. 14, 1853. Saw him at 11 o'c. same day, [illegible] good health. Had a good [illegible] well proportioned, [illegible] Hernia, of old standing [illegible], I was called to see him [illegible] at 1 P.M. P.M. The nurse [illegible] he had had four [illegible] since the time I saw him. He [illegible] partial paralysis of the left side, [illegible]

[illegible] Apoplexy, Thos. Chalgrix

[illegible]

[illegible] immediately gave him [illegible] to the death [illegible] to his complete [illegible]

A [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] immediately an enema,
which [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] him the
other pill and the rest of the enema.
6 O. C. P.M. said the patient was (?)
better, had a better pulse, but
seemed stupid. 7 O'clo. P.M. was
called by the nurse, found him
in a convulsion, it was the second.
He was again in a comatose con=
dition, pupils contracted, pulse
small, but not compressible, I tried (?)
to extract blood from the
arm, found the pulse to grow stronger
by the use of the lancet. [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
on the inside of his [illegible] [illegible]
[illegible] [illegible] [illegible] his head,

From 15 to 20 minutes after, the convulsions commenced with increased violence. He had convulsion after convulsion. Extremities were growing cold. Pupils were contracted, [illegible] fixed and covered with a mucous film. Paralysis of left side. Stertorous respiration; nearly pulseless. After a consultation with Drs. [illegible] it being [illegible] the man could not possibly live more than 15 minutes longer, I concluded to perform tracheotomy. There was very little hemorrhage from the operation. Immediately after a large quantity of mucus was discharged through the opening made in the trachea. Soon respiration was better, pulse better, his eyes began to assume their natural appearance. He noticed objects around him and made an effort to speak. Still continued to discharge a quantity of mucus through

The orifice, which was distinct [illegible]
On the 2nd at 10 o'clock A.M. I [illegible]
[illegible] over the [illegible] [illegible]
he was left in charge of [illegible] He
remained quiet till morning.
6 o'c. A.M. found him in a better
condition, pulse good, had had
two evacuations during the night.
His trachea was allowed to close;
he complained of his head and was
slightly delirious. Ordered ice to be
applied to head and two blisters by
six to the calves of legs. 7 o'c. A.M.
had the ice removed, and blisters
dressed with length, Hydg, [illegible] ap-
plying lotion to his head. 4 o'c. P.M.
complained of some pain in [illegible] Time
ordered. [illegible]

[illegible]
[illegible]
[illegible]

[illegible] 5th O'clock A.M. [illegible]
the early [illegible] [illegible]
[illegible] bowels see no [illegible]
[illegible] O'clock, [illegible]
the [illegible] [illegible]
[illegible] [illegible]
simple cerate, [illegible]
[illegible] [illegible]
[illegible] [illegible] the night, [illegible]
by laxatives. 5 O'clock P.M. had
blisters dressed and was doing well,
Complained of slight pain in stomach
bowels, ℞ Ol. Ricini ℥ss
Tinct. Opii ♏xx
[illegible] time, Medicine operated and pain subsided; 6th 9 O'clock A.M. [illegible] rested well
and felt nearly [illegible]
Continued to improve until [illegible]
left the house which [illegible] the
20th of July 1854.

An
Inaugural Dissertation
On
Uterine Hemorrhage
Submitted to the examination
of the
Provost Regents & Faculty of
Physic
of the
University of Maryland
for the degree
of
Doctor of Medicine
by

David T. Applehart
Howard County
Maryland

Uterine hemorrhage embraces all bloody discharges from the uterus, depending upon a functional or organic disorder in the impregnated or unimpregnated condition of the organs. In this [illegible] only will be considered that are connected with gestation. As hemorrhage connected with pregnancy is a most trying deviation from the usual course of labor: not only because of the imminent danger which threatens the patient but the suddenness of its incursion — rapid progress of the attack, & impossibility of calling for assistance. Nothing can prevent or calm a presence of mind under these circumstances & allow us to possess "mens sibi conscia recti", but a proper understanding of the subject and being able to meet each variety of the accident as it occurs with its appropriate treatment

Hemorrhage may occur previous to, during, or after labor. There are two kinds of

hemorrhages which may attack the patient during the latter months of gestation depending upon different causes. That which is produced by partial separation of the adhesions of the placenta to the uterus, when occupying its natural position (into the fundus of the organ) is called "accidental hemorrhage". When the location of the placenta is upon the Cervix or Os Uteri, hemorrhage must necessarily ensue upon each dilatation of the orifice, this latter is very properly called "unavoidable hemorrhage". In Placenta Previa of Dewees, it is most expedient to consider each form of hemorrhage separately: first hemorrhage accompanying pregnancy, then accidental and unavoidable hemorrhage occurring during parturition.

Very profuse uterine hemorrhage may precede or accompany abortion. It may be produced by blows, falls, jarring or any accident or it may result from some morbid state of the ovum or its vessels beyond our cognizance

It may be internal for a time then become visible or it may be discharged per vaginam from the beginning. The diagnosis of course is without difficulty when it escapes from the vagina, but internal hemorrhage is often very obscure. In general it is attended with the following symptoms. The patient becomes pale, exhausted & faint — her pulse is small quick and weak, a dark shade under the eye, she complains of shivering, dull pain in the lower part of the pelvis, pain in the head, general prostration, and as the blood gets larger there will be a difficulty in voiding urine, weight in the rectum, tightness about the epigastrium and finally syncope with reaction at intervals. If you place your hand upon the abdomen you will find the uterine tumor larger than it should be at that period of gestation. The distension of the organ will after awhile produce contraction, the membranes are ruptured & the

first scope. In treating a case of hemorrhage accompanying abortion it is our duty, first to decide whether we can attempt to save the pregnancy by preserving the vitality of the ovum and secondly to decide whether any protracted efforts of the death of the ovum & the other case it remains our respect no longer. In the former we will fail to do our duty if we neglect to do, whatever tends to the conservation of the fruit of the womb. When the amount of blood lost has not been sufficient to induce us to believe the patient in danger, but yet demands our interference, recourse may be had to napkins wrung out of ergot & water with application to the hypogastric & inguinal — to the administration of dilute sulphuric acid — exclusion of heat, with opium — a powder consisting of five grains of alum and one of ergot is said to produce tonic effect. But when all hope of preserving the life of the ovum is lost the tamponade is the most efficient

means we possess of stilling an end to this troublesome hemorrhage. But this should never be resorted to if the organ in apply, or the patient is far advanced in pregnancy, when such persons to the end of the fifth month the uterine gate is not sufficiently dilated to allow that amount of blood to be efficient as would place the life of the patient in jeopardy and by plugging the vagina we will produce congestion of blood in the organ, which organ will cause the cessation of the bleeding vessels, but is not a proper remedy if such hope is attendant of carrying the part, having already an effusion produced to the extent of the hemorrhage our only hope and reliance is in a speedy extraction of the child, when possible. This can generally be accomplished by introducing your finger into the os uteri and then bending it to reach the head, hook and by the assistance of a powerful bearing down causes the part of the uma-

[illegible] much diffi-
-cultly [illegible] the forceps [illegible] the forceps [illegible] to be used Dr Denis' placenta
hook, [illegible] in [illegible] or
Dr Bonds placenta forceps.

Accidental hemorrhage — In these cases, the placenta is located upon any part of the uterus, except the os uteri or os as then it would be denominated Unavoidable hemorrhage; [illegible] it is not at all uncommon for patients [illegible] to lose a [illegible] of blood from the womb, sometime during the process of child-birth — Yet it is neither safe nor natural for them to lose that amount to give to the flow the character [illegible] of hemorrhage; the [illegible] of blood lost ordinarily to the life of the child, will not exceed an ounce, sometimes less. Therefore the occurance of a show needs not excite any alarm or even surprise, [illegible] beyond the usual amount. But when the

effusion is excessive great alarm is felt and there is more or less real danger according to the cause of the accident.

The immediate cause of accidental hemorrhage is a partial separation of the adhesion of the placenta to the [illegible] uterus and is usually in proportion to the extent of surface separated, or to the [illegible] lacerated, but it seems to me fatal hemorrhage might proceed from a very small space, if the [illegible] to the [illegible] However in some cases when a portion of the [illegible] placenta is detached and the cavity filled with blood is surrounded by a close adhering after-birth of course none can escape externally.

Causes. Any violent shocks, such as [illegible] separation of the after-birth. Besides these there are other causes, viz. [illegible] —

[illegible], straining at stool, excessive action of the utero-placental vessels, general plethora, & disease of the placenta.

The exciting cause, is either followed immediately by a change of position [illegible] exertion, pain in the billy and back: or if the hemorrhage is concealed there will be uneasiness, dull pain in the womb: sudden increased sizeness, tension of the [illegible] & smallness of pulse: paleness: yawning & sighing: syncope: But if the [illegible] continues, in time the surface will become blanched, & covered with a cold clammy sweat: the countenance sunken: death, [illegible] the eyes: [illegible] fluttering pulse: if the [illegible] is not [illegible] these symptoms [illegible] with ringing in the ears, loss of [illegible] restlessness, palpitations & death.

It is all important to [illegible]

accidental from [illegible] because their treatment is essentially different. There are three points in which the two varieties of hemorrhage differ, and by each we can [illegible] them. In the first place there is some attributable cause or accident by which we can account for the hemorrhage, or else it is innocuous. Secondly, in accidental hemorrhage the discharge takes place freely among the internal of relaxation, and is [illegible] during contraction, whereas in innocuous hemorrhage, the discharge, although it may continue during the interval, generally occurs during a pain. Thirdly, most positive mark of distinction is discovered by an examination per vaginam. When we make an examination in accidental hemorrhage we find the os uteri is free or closed by membranes only. That the cervix is of equal

The bones all round, hence in unavoidable hemorrhage, we find the os uteri more or less covered by the placenta, and the cervix considerably increased in thickness at that part.

We may also by the resistance of the Methodist ascertain the direction of the placenta, if found to occupy the lower or body it satisfies us, we have to deal with accidental hemorrhage.

In the treatment of this variety of hemorrhage we are to be governed by the period of pregnancy, condition of the os uteri & amount of discharge.

If we suppose that the patient has not arrived at term, the os uteri is undilated the hemorrhage is not profuse. In such a case neither manual nor instrumental assistance is demanded, therefore we must trust to the use of other expedients for checking the

discharge, if the pulse of the patient be found to be full & throbbing & the constitution not affected with debility, it may be safely and properly have recourse to venesection, that we may lessen the momentum of the bloods, which by its great impetuosity tends to keep up the flow & stimulation to the uterus. The patient should be placed on a bed or matrass in a horizontal posture with her heads low. The room should be freely ventilated. She should be allowed the free use of cold, ice water or lemonade, & cold applications should be made to the hypogastric region. Clysters are good if they are not found to excite pain in many of applying the fomentations & cold clysters considerable relief is given the sanguine effusion, whilst she at the same time should take internally an infusion of Dover with elixir vitriol or the plumbi acetas with opium. In lieu the second

means for exciting the [illegible] to
blood towards the uterus. but [illegible]
this treatment will succeed, in many [illegible]
and the patient carried to full "time" in safety, yet in other it will fail either on account
of the increase of hemorrhage, or before the
pains of labor are brought on. In these
cases as well as when hemorrhage is
profuse from the beginning a different
course of treatment is to be adopted.

If upon inserting a finger into the os
uteri, we are unable to discover any portion
of the placenta and the membranes are found
to be intact, we may attempt to rupture
them and allow the water to escape in order
to lessen the size of the uterus. The
evacuation of the water generally will
bring on labor pains, consequently con-
traction of the organ, which will press the
placenta upon the uterus on one hand
and on the bleeding vessels on the other

and by its presence will prevent the [illegible]
-ovum, that we have [illegible] to see
that will induce us to open at [illegible]
periods the breathing of the membranes,
such as a [illegible] presentation of
the child, requiring to be turned. In such
a case it would be imprudent unless it
was absolutely necessary to [illegible] the
waters to escape from the uterus previous
to dilitation, for it is much more difficult
to perform the operation of turning
in a female, from whom the waters have
been [illegible] than in one in whom they
are still present. Loss of the waters
of the uterus is rapidly inevitable, rendering it impossible to introduce the hand
and turn, it should be a question of
deep consideration, whether the mem-
-branes should be broken or not. I
should certainly feel inclined to defer
it until the expulsion of the [illegible]

become unavoidable.

[illegible] one [illegible]
[illegible] of the [illegible],
and the [illegible]
[illegible]
[illegible] of the [illegible], [illegible] may
be had to the Ergot of Rye, in small
doses [illegible] every half [illegible]
or hour, with a view to produce a feeble
Ergotism or tonic contraction of the
womb not severe enough to injure the
child, yet so strong as to condense
the uterine tissue sufficiently to arrest
the hemorrhage. When it is clearly
ascertained the period for hastening
the delivery has [illegible], which is
known by its strength, [illegible],
the fullness of her pulse, the color of
her lips, and the dilatation of the
mouth of the womb, we should imme-
-diately place the patient in a position

[illegible] the head [illegible] determined by the [illegible] of the head. If the head is above the [illegible] of the pelvis we may push it aside and search for the foot and bring them down out of low in the pelvis, we may seize it with the forceps and thus terminate the labor.

[illegible] Cord — This is one of the most dangerous accidents to which the parturient woman is exposed, but fortunate for her it is of very rare occurrence. The placenta being situated upon the cervix or os uteri, hemorrhage must necessarily [illegible] if the organs, [illegible] between the placenta and uterus is produced. The more advanced the pregnancy the [illegible]

of the [illegible] corresponding [illegible]
the [illegible]
[illegible]
[illegible]
it occupies [illegible]
of the [illegible] the first appearance
of the discharge occurs about three
weeks previous to [illegible]
the first [illegible] of the [illegible]
The amount of [illegible]
but [illegible] It is [illegible]
[illegible]
the [illegible]
and will ~~[illegible]~~ be apparently [illegible]
the [illegible]
[illegible]
[illegible]
[illegible]
is done to prevent it. But at the first [illegible]
pains [illegible]
[illegible]

[illegible]
is offered. [illegible]
on record, in which the p[illegible] was [illegible]
through the os uteri; along [illegible] th[illegible]
[illegible]
The external symptoms are the [illegible]
supposing the head present [illegible]
placenta be located partially [illegible]
the os or upon its edge; and [illegible]
tect the difference by an [illegible]
tion. But upon making an [illegible]
per vaginam, in the first case, we find the
os [illegible] a soft
spongy mass, firmer than [illegible]
nothing [illegible]
which the presentation can [illegible].
In the second case the placenta [illegible],
is felt occupying [illegible] all the os uteri
its edge can be distinctly felt [illegible] also
the membranes, [illegible]
[illegible]

The [illegible] is [illegible] [illegible], [illegible] the os is only covered by the membranes, be-
cause distinguish the [illegible] [illegible] [illegible]
ly it being firmer and not being able to
be broken with the finger, and we may often
feel the adhesion of the placenta to the
corner within the os uteri.

If we should be called to the patient
during the first or second flooding
and finds it has not been great. The
Term of pregnancy has not expired, and
the uterus is not in action. We should make
use of [illegible] [illegible] [illegible] [illegible]
perfect quiet, rest on a hard bed, gentle
aperient, a cold room, light clothing. Cold
vegetable drinks. Enemas of cold water
small doses of opium may be prescribed
for the patient. Although this [illegible]
may be [illegible] [illegible] [illegible]
- ous to the setting in of labor but as so
as labor [illegible] [illegible] [illegible]

[illegible]
to which it the patient is exposed, [illegible]
the dilatability of the os, and the strength
of the pains in labor, [illegible]
the os [illegible] pains strong and frequent, [illegible]
may be [illegible]
of blood, [illegible]
if the os is rigid and tense, pains fail
the patient may perish before the mouth
of the uterus [illegible] sufficiently [illegible]
to admit the introduction of the hand—
for although the great object to be
attained is to introduce the hand, and
yet, we should not attempt to introduce
the hand, unless dire necessity shows
compels us, [illegible] the mouth of the uterus
is in an undilated and rigid state.

But supposing the [illegible] for delivery
has [illegible] the os being in a dilated,
or dilatable condition. The patient [illegible]

be brought to the edge of the bed, [illegible] permits, [illegible] the [illegible] the [illegible]. If the head presents [illegible] not the position we should act upon [illegible] presumption that it [illegible] is the left acetabulum, which is the most [illegible] one, and of course [illegible] with the left hand. The hand is to be introduced in the usual way first in the direction of the [illegible], it is the direction of the [illegible] which will bring the fingers to the mouth of the womb. By means of the fingers we soon learn on which side the placenta is situated, then [illegible] fingers on the side which we believe the placenta to be narrowest, dilating the os as we proceed, we gradually carry the fingers between the [illegible], the [illegible] the [illegible]. The membranes should be ruptured as high up as possible, the foot [illegible]

[illegible] as speedily as possible [illegible] should be brought into the vagina, not only with a view of hastening the labor and permitting the mind to contract but in case the highest [illegible] in [illegible] into the [illegible] may expect the [illegible] to [illegible] the orifices of the bleeding vessels. We may allow nature to complete the labor. We should be particularly desirous to extract the placenta, lest it not unfrequently follow the child, and great care and watchfulness will be necessary to secure a good permanent contraction, in order to prevent [illegible] hemorrhage. Pressure over and above the uterus should be made with compresses & the binder, and if there should be much draining, cold must be applied and [illegible] placenta, [illegible] to the margin

of the os uteri, it should be treated as accidental hemorrhage, for when the membranes ruptured, the pressure of the head, while dilating the os uteri, will press against the bleeding vessels, and prevent a discharge until the child is expelled. Therefore it is our duty in the first instance to evacuate the "Liquor Amnii" but if this fails we should turn and delivery the child.

Some writers recommend perforating the placenta and extracting the child through it. This would be a very bold operation and I think extremely objectionable, because lacerating the vessels, would be sure to prove destructive to the child, which would bleed to death, moreover if the feet were dragged through the perforation made in the placenta, the passage of the body and head would be retarded by having to pass through that mass, and to also cause that perforating the placenta and ex

tracting the child through the cervix could scarcely fail to detach the placenta from the uterus, whole by inserting the hand between it and the organ we could separate a part.

I think that in order to secure a tonic contraction of the organ, it would be advisable to administer a small dose of ergot of rye. It should be given at a time to secure its action subsequent to the delivery of the child, it should be given as soon as turning is performed.

I believe I have given the mode of treatment recommended and practised by the most eminent obstetricians but I omit for me to mention the plan of treatment recommended by Dr Radford, a Scotch physician. They advise the extraction of the placenta, previous to the expulsion of the child and they explain their success and recommend its adoption upon the

theory that the hemorrhage occurs not from the patulous orifices of the vessels of the womb but from the placenta itself. Now I think we have thousands of instances in our practice & post mortem examinations to prove that the blood does flow from the open orifices of the womb, unless they are arrested by a condensation of the canal under its muscular contraction. Therefore it is only necessary for me to say, using the capacity of a blunt hook to close the steam to it succeeds, or to repeat would expect the practice of it to be dangerous

Hemorrhage during labor — In hemorrhage occurring during parturition, the indications it presents may be varying to the intensity of the symptoms and extent of dilatation of the os. For instance if the blood flows in small quantities, we may make use of the means recommended in accidental hemorrhage. Such as placing

the patient in the horizontal position — give her cold or aromatic drinks — apply cloth wrung out of vinegar and water to the vulva. If the hemorrhage should persist in addition to the means above mentioned, we must replace the membranes, in order that the uterus to contract — compresses to the abdomen, and as soon as the mouth of the womb is sufficiently dilated we must introduce the hands and turn if the child be high up in the pelvis, but if low in the excavation must make use of the forceps.

Hemorrhage after labor. This is the most frequent and at the same time one of the most terrible accidents which befall the parturient woman. It is produced by the failure of the uterus now to contract consequently the utero-placental vessels remaining through all substance, not being constringed, a dangerous hemorrhage ensues upon the detachment of the placenta —

The determining causes which give rise to inertia of the womb, may be classified 1st The exhaustion incident to a protracted and painful labor. 2nd A very short labor or its rapid termination by a rude & hasty depletion of the organ — 3rd An excessive distension of the womb, which may paralyze as it were the contractility of the uterine tissue. This inert condition of the organ is ascertained by palpating over the lower part of the abdomen, we find nothing but softness & fluctuation, and by carrying the hand through the vagina, we find the uterine parietes very thin flabby & wrinkled, the symptoms which indicate the evidence of hemorrhage, are the patient complaining ~~of hemorrhage~~ ~~and~~ ~~in~~ of a feeling of weight about the epigastric region, and soon the face grows pale — sight dim — pulse small & fluttering pulse. nausea — syncope — To these may be added pain in the loins, spasmodic chill, and in the later

moments then not unfrequently comes on an hysterical attack or convulsive movements. It is hardly possible to mistake the nature of these symptoms when the loss of blood is external, yet it is for diagnostic value if accumulates in the abdomen although the sudden syncope, enlarged abdomen may be considered pathognomonic signs of rupture, yet these circumstances may all be met and there be no hemorrhage - but in these cases the diagnosis is rendered easy if we resort to the digital touch or palpation over the supposed region.

In treating this variety of hemorrhage, we have to keep steadily before our minds the one great & special indication, namely to produce a permanent contraction of the uterine tissue. Of the various measures recommended to produce this condition the most efficient is friction made simultaneously over the body & neck of the organ by placing the hand over the lower part of

the abdomen, so as to rub, press & squeeze the uterine walls, whilst at the same time two fingers are plunged into the vagina, to excite or irritate the os uteri. If this should fail, we would introduce the hand into the organ and irritate its internal surface with the fingers. If this should fail the alternate use of Cold and Warm water often succeeds also Cold water poured from a height down upon the exposed abdomen of the patient — inject Cold water into the vagina and uterus. Ergot is recommended — but unfortunately the time necessary in preparing it and in the administration of its active principle is, usually too long to secure a sufficiently prompt effect, and hence in an alarming hemorrhage, one dependent upon complete inertia of the womb for an example the patient would certainly die [illegible] any benefit could be hoped for from its employment, but it is a good remedy whenever we can [illegible] in a patient, a disposition to hemorrhage [illegible] always well to give a small dose of Ergot

just previous to delivery; also when there is
[illegible] in the female a few grains should be administered in order to keep up a firm contraction of the uterus.

Feby. 14th 1856.

An Inaugural Dissertation on Scarlet Fever

Submitted
To the examination of the
Provost Regents & Faculty
Of Physic
Of the University of Maryland
For the Degree of
Doctor in Medicine

By. S. H. B. Williams
of Mississippi

Balto.
Feb. 14th. 1856.

Gentlemen;— In accordance with the requisition of a statute [illegible] of Maryland which requires of each candidate a Thesis [illegible] composition to be submitted to an examination of the faculty; I have had under consideration several subjects connected with the science of Medicine upon which to write.

I have chosen one of that very interesting class of diseases denominated the exanthemata. A disease of a very interesting nature, and exceedingly fatal in its termination; so much so; that every Physician should be thoroughly acquainted it; for Stayo; Dr. Gregory, "it is obviously an increasing Malady, and vids fair to occupy that painful preeminance in after time that Small pox did formerly.

I allude to Scarlet fever.

Scarlet fever, or Scarlatina as it was denominated by Sydenham: may be defined to be a contagious febrile disease accompanied by irritation or inflammation of the fauces, and a scarlet-coloured eruption which appears generally on the second after the fever has set in, and which terminates in desquamation usually on the sixth or seventh day. Concerning the origin and early history of Scarlet fever, very little is known; though we have I think sufficient reason for believing that it existed at as early a period, as either measles or small pox. Among the writings of the Arabian physicians we find an account of an affection which they supposed to be a variety of measles, but from the amount of desquamation they describe as having taken place, it is highly probable that

it was Scarlet fever. Ingrassais seems to have been the first to regard it as a peculiar affection in the year 1555. It was afterwards noticed by various physicians in Spain, Germany France, in Great Britain, but by all of them it seems to have been regarded as merely a variety of Measles. It was not untill the time of Dr Withering that Scarlet fever and measles were recognised as two diseases seperate and distinct.
To him is due the credit of placing Scarlet fever in its present position in the catalogue of diseases

Such is an account of the history of Scarlet fever that I have been able to obtain from authors but I have consulted on the subject.
I will proceed now to the consid-
-eration of the Symptoms

Symptoms. In order to render the disease of more easy of description it has been divided into three varieties; the Simple; the Anginose, and the Malignant; all three of which differ only in the intensity of the symptoms. I shall first give a general description of the disease, and then consider the several varieties. When a person is about to be attacked with Scarletina, he generally experiences the symptoms usually precede an attack of fever generally, such as a feeling of weariness, languor debility, pain in the back, limbs &c. Fever sets in with frequent pulse, hot dry skin, furred tongue, flushed face, loss of appetite, generally muscular debility, and very often there is evidence of deranged nervous function! such as morbid vigilance

delirium, coma, &c. These symptoms vary greatly in different cases. Sometimes they are so mild as scarcely to demand attention, at others they are so intense as to prove fatal in a very short time.

About the time of the coming on of the fever there nearly always more or less irritation or inflammation of the fauces, which upon examination present a deep red and swollen appearance, in consequence of which deglutition is exceedingly difficult and painful.

The mucous membrane of the mouth has also the same red appearance of the fauces. The tongue is covered with a yellowish white fur, and presents projecting red papillæ.

As has already been stated the eruption usually makes its appearance on

the second day; this is however not invariably the case. Sometimes it is the first evidence that we have of the approach of the disease, or it may be delayed until the third or fourth day. The rash is first seen on the face and neck, then the trunk and extremities. When it first appears it is in minute red spots, which quickly become so numerous as to give to the surface an universally red appearance. The eruption differs on the trunk from that on the extremities, in not being so prominent, and not presenting the mottled appearance, the blush being generally more diffused. It is deepest about the joints, as the knees, elbow, groin &c.

Any excitement has a tendency to deepen the colour of the eruption; hence the deep colour during

high febrile excitement.

The febrile symptoms at this stage of the disease are very prominent, and seem not at all modified by the appearance of the eruption. The pulse is very frequent and weak, being generally as high as one hundred and twenty or thirty a minute. Exacerbations usually occur in the afternoon, and is often attended with great restlessness, delirium, coma, or other signs of nervous disorder. Profuse diarrhea is not by any means an unfrequent attendant, though sometimes the reverse.

The angina is in many cases very mild, but in a great many others it constitutes the most prominent and alarming symptom. About the eighth or ninth day if the disease is going to termin

-ate favorably, all the symptoms begin subside. The pulse becomes slower and fuller, the tongue throws off its fur, and presents a smooth and glossy appearance. The rash fades, and desquamation takes place the cuticle being thrown off in small bran, like particles from the surface of the body, but on the soles of the feet, and palms of the hand it comes of in large thick flakes leaving the parts tender and irritable. If the disease has gone on uncomplicated up to this time, the patient may be considered as well, though not yet entirely exempt from some of those dangerous affections that are often a sequel of scarlet fever. Should the disease be complicated and death supervene, it be very apt to occur from some one of the

following causes. Death may result in the first stage, in consequence of the attack being so powerful as to over-whelm the powers of system producing coma; from which the patient cannot be aroused. Inflammation of any of the serous membranes, bronchial tubes, larynx, lungs, stomach and intestines, are complications which may at any time carry off the patient. Or the patient may die of exhausting purulent discharges which often follow an attack of the disease.

Having ~~written~~ all, that I conceive to be necessary concerning the general symptoms of the disease, I will now proceed to the consideration of the varieties.

The term scarletina simply seems to imply that form of the disease in which there is absence

of the throat affection. But if the term be restricted to those cases alone, we might just as well not use it, for those cases with the absence of the angina are so extremely rare and generally so trivial in their nature as scarcely to merit the name of disease.

The term is extended by most authors to those cases in which there is a slight degree of inflammation of the fauces.

This form of scarlatina is always mild, and seldom terminates fatally, unless the disease be complicated with some of the complications before mentioned.

The eruption appears early in this form, sometimes appearing even earlier than the fever. It is first seen in this form, as in the others, on the face, then gradually diffusing itself with various degrees

of intensity over the trunk and extremities. The febrile symptoms are seldom severe, although they are so much so at times as to create some alarm.

Generally on the fifth day the symptoms all begin to decline, and in a short time the patient may be restored to his former health.

But the disease is liable at any time to assume one of its more aggravated forms, in which case our earnest apprehension should be excited for the safety of the patient.

Scarletina Anginosa— This is the most common form of the disease, and is that from which the simple and malignant gradually diverge, so that there is no regular line of demarcation, between the simple and the anginose, or the anginose and the malignant.

Scarletina Anginosa is a disease that

will call into to play more pathological knowledge and therapeutic skill, than almost any other disease. It is a disease with which we should be thoroughly in order that we may act judiciously in cases of emergency; for owing to the rapidity of its course, it seldom leaves time for reflection or the consulting of books. If well understood its management may be materially aided by medical art. This variety is characterized at the onset by the prominence of the throat-affection, the difficulty in swallowing, and stiffness of the jaws. The eruption is generally a little later in this than in the simple form; it is also less copious and less diffused. The fauces, uvula, soft palate, and tonsils present a deep red and swollen appearance on being examined. There often seen patches of a concrete exudation on the surface of the

tonsils. These were formerly supposed to cover ulcerated or gangrenous portions of the mucous surfaces. This has been found sometimes to be the case, but in most cases the surfaces is found — neither ulcerated or gangrenous

The exuded mucous is soft, and of a yellowish, or dirty, white colour. The patches are of variable size; sometimes very small, at others so large as to extend down into the larynx producing symptoms of pseudo membranous croup.

While this is going on in the throat, the mucous membrane of the nose, an acrid discharge soon follows. the parts are red and swollen. and the nostrils may close; thereby rendering respiration through them, for the time impossible. The inflammation not unfrequently extends along the Eustachian tubes to the ear occasioning a purulent

and bloody discharge. The eyes may also become affected, and one or both of them may be destroyed.

The cellular tissue in the regions of the parotid and submaxillary glands is nearly always swollen, and the glands themselves are not unfrequently inflamed. The parts are very painful, and the patient cannot open the mouth wide enough to admit of an examination.

About the seventh or eighth days if the disease promise a favorable termination, the symptoms all begin to abate, The tongue become clean, the eruption fades, the pulse assumes its natural standard. If the symptoms continue to diminish in intensity the patient may be regarded as well. But instead of assuming a favorable character, it not unfre

-quently assumes a typhoid character and the patient is suddenly and violently prostrated from which only in in rare cases he can recover

Scarletina Malignea - This is the term employed to designate that form of Scarlet fever in which the symptoms evince an extraordinary degree of weakness and depravity

The malignancy of this form seems not to depend upon any local affection but from the intensity of the scarlet-inal poison in the system.

A person may be attacked with the simple or anginose either of which may assume the malignant form as the disease advances.

As this variety usually occurs it is preceded by the same set of symptoms that precede the other forms, differing from them only in the intensity of

the symptoms. The patient first complains of great debility and oppression, so that he can scarcely support himself. Rigors accompany or precede these symptoms; the face is pale, the features are sharp and shrunken, the eyes are sunken, and deprived of their usual animation. The extremities is cold while the body is hot: great difficulty breathing; the pulse is variable; sometimes weak and soft at others hard and strong.
The fauces are of a deep red colour and the exudation that is of a whitish colour in the anginose variety is almost black in this
Gangrenous eschars, or deep ulceration not unfrequently form in the throat and destroy the soft parts in their neighborhood. Hemorhage is liable to take place from the Mucous membranes

Ulcers form on the parts upon which has been much pressure.

The disease usually goes on for about two weeks, at which time colapse takes place with haggard countenance, cold clammy skin, fluttering pulse, and in a short time death closes the sad and painful scene.

Sequele of Scarletina;— Of all the diseases to which human flesh is heir to there are only a few, if any, that leave behind them so long a train of evils as Scarlet fever. And it is the duty of the Physician to understand them, and prevent them if in his power, or as far as possible to allevate them

The most common of the sequel of scarlet fever are abscesses which form in the region of the parotid and submaxillary glands; which are not unfrequently large and

exhausting. Abscesses also sometimes form in the cavity of the tympa-
-num and destroy the membrane of that organ. Inflammation or ulceration of the membrane lining the Eustachian tubes may adhesion to take place, thereby rendering hearing difficult or impossible.
In consequence of inflammation of the nostrils the sense of smell may be likewise affected. The testes also sometimes though rarely participate in the disease.
Dropsy is another of the sequelae of Scarlet fever, and is perhaps the most serious of them all.
Any one of the various forms of dropsy is liable to follow an at-
-tack of scarletina; although anasar-
-ca is by far the most frequent.
Dropsy in the cases probably result-

from the same causes that it does in ordinary cases, and as a general rule is more easily managed, unless the brain or heart are involved.

Concerning the sequelae of scarlet fever a good deal more might be said, but I think it unnecessary; for if a person those afflictions as they occur unconnected with other diseases, there need be little difficulty in recognizing and managing them when they occur as complications.

Anatomical Characters—

On examination after death by scarlet fever the lesions detected are many and various.

The fauces nearly always exhibit evidences of the previous existence of inflammation. In some cases

however in which the patient have perished in the first stage of the disease, all signs of inflammation may have disappeared at the occurrence of death.

The concrete exudation is often found in large quantities on the walls of the Pharynx, and it sometimes extending into the oesophagus, and it may though rarely extend into the larynx.

The cellular tissue beneath the cuticle is nearly always reddened and injected.

The alimentary mucous membrane is often found in various parts to be inflamed or highly congested. The solitary glands of the duodenum are occasionally found to be enlarged and softened, and present very much the same appearance that

they do when affected in typhoid fever. The Kidneys are not infrequently found to be inflamed. Occasionally cases occur in which no lesions at all can be detected that can explain the cause of death. The blood in Scarlet-fever is in different conditions in different cases; sometimes it is thick, and others thin and watery, sometimes dark coloured then again it is red

Causes:— Concerning the Causes of Scarletina there seems to be some difference of opinion. Some authors say that they have never seen any positive evidence of its having ever been communicated from one person to another. But I believe the general opinion is; that the disease is caused by a specific poison, which is believed

to be of a contagious nature, and is capable of being greatly modified by epidemic influence.

The Scarlatinal poison is not so strong or uniform in its operation as that of small pox; but it is more apt to lurk about an apartment a much greater length of time than the variolous poison. No age is exempt from the disease, but it by far more commonly attacks children than adults. The disease is scarcely ever seen in persons above forty or fifty years of age.

Scarlet fever rarely or never attacks the same more than once, though there are instances of its occurrence

Diagnosis:— At the begining of an attack of Scarlet fever it is often very difficult and sometimes impossible to form a correct diag--nosis; in consequence of it so much resembling other fibrile diseases. After the first two or three days have passed and the second stage have set in it may in most cases be recog--nized very readily.

The disease with which it is most liable to be confounded is measles. There are however points of difference by which the two diseases may be generally recognized. Such as the angina in Scarlet fever and the Catarrh in measles. There is also a difference in the ~~appearance~~ of the rash, that of measles being of a lighter hue, and not

presenting that diffused appearance of scarlet fever.

This disease is also liable to be confounded with roseola and erythema, but is generally distinguished from them by there being in most cases more constitutional disturbance in the former than in the latter.

Prognosis;— It is generally exceedingly difficult to ascertain with any degree of certainty, as to the probable termination of a case of scarlet fever. The mildest cases occasionally assume the most malignant form, and the patient may suddenly perish from the powerfully depressing influence of the affection, and on the contrary the very worst cases may result favorably. There however instances in which we may judge with some confidence as to the results

for instance the character of the epidemic, the habit of the patient when attacked, or the character of the individual case

Treatment—

In a large majority of cases of Scarlatina little or no treatment is demanded; except that is necessary to watch the progress of the disease and obviate any tendencies that may give rise to the implication of vital organs

In the begining of the severe forms of the disease an emetic is believed to be of considerable value, unless there is a tendency to cerebral disorder. They produce their beneficial effect by removing all irritating substances from the stomach, by improving the secretory functions of that organ, and also

by equalizing the circulation of the blood. Tartar Emetic, Ipecac, or Sulph of Zinc are the agents that are usually employed for this purpose.

After the emetic has produced its effects it is said to be advisable to give a purgative dose of Calomel, and if it do not operate give a dose of Castor, Sulph. of Magnesia, or other Saline purgative. After the bowels have been thoroughly evacuated, they should be kept open daily by the administration of a mild laxative care being taken however, not to purge to exhaustion.

As regards the abstraction of blood in scarlet fever, we are it seems to me to be governed entirely by the circumstances of the case, although some writers say that is beneficial and should employed in nearly case, while others say that it is nearly always

attended with serious consequences.
It is I think necessary to be exceedingly careful as to how and when we employ bloodletting in this disease; for when we consider that the general tendency of the disease is to produce prostration of the vital forces; our object should not be to employ any agent that will tend to promote that condition of the system, but to obviate any such tendency. On the whole I think general bloodletting to be unnecessary, unless imperatively demanded by inflammation attacking some of the vital organs
Local bloodletting will in most cases answer ~~all~~ our purpose, by applying cups or leeches over the parts that are inflamed
As the skin in this disease is excessively hot and dry, it is necessary that we should employ some means to

diminish the heat of surface
For this purpose the application externally answers very well. It diminishes the heat of surface, reduces the frequency of the pulse, and is also largely conducive to the comfort of the patient.

Refrigerant drinks are also used with great advantage. The patient may be allowed to drink freely of iced water, or ice itself may be allowed to dissolve in the mouth. The neutral mixture, solutions of the citrate, muriate or the acetate of ammonia may be given of the same purposes.
If there is much nervous disturbance Hoffmans anodyne, Sweet Spts of Nitre, or the Camphor water may be used with benefit.

It is of the greatest importance that we be constantly on the watch for symptoms of debility; in order

that timely means may be employed to prevent them as far as possible.
When they do make their appearance we should not hesitate a moment to resort to tonics and stimulants. for this purpose there has been various agents employed, all of which are probably equally benficial if properly employed. Those most commonly used are the mineral acids, capsicum, oil of turpentine wine &c. In making our choice of these agents, we should be governed entirely by the circumstances in each individual case that would indicate their employment.
Local Treatment. The application of local remedies are of great importance in this disease. When there is only a slight inflammation of the fauces, a gargle of some mild astringent solution, such as vinegar

solution of common salt or of water with a small proportion of some of the mineral acids. When the inflammation is very intense, and has gone on to ulceration or gangrene, strong solutions of nitrate of silver, are the applications that are usually employed.

If the breath is very offensive, gargles of creasote or chloride of lime are found to be beneficial.

The external application of leeches when deemed expedient, are often of great advantage in subduing the inflammation of the fauces and glands contiguous to them. Counter-irritants are often found to be of great advantage, for this purpose the volatile liniment, oil of turpentine or tincture of capsicum is used. Blisters are also often used, but there is very great danger of sloughing in those cases attended with much debility.

When convalescence is set in, it is of very great importance that the patient should avoid all exposure to cold and damp. The bowels should be kept freely open, and the system strengthened by the use of such vegetable bitters, or the mineral acids.

Concerning the treatment of those affections, that follow an attack of Scarlet fever, it is enough to say that they are to be treated very much in the same manner as when they occur uncomplicated with this disease.

Prophylactic Treatment.

For this purpose there has from time to time been various medicines recommended, all of which seem to be of no avail whatever.

The treatment that seems to enjoy more confidence than any other, is that of Dr Hahneman (the Homoeopathist) in

which he directs that three grains of the extract of Belladonna be dissolved in one ounce of water, the dose of which is three drops twice a day for a child one year of age, and to be increased one drop for every additional year. This treatment Dr Hahneman may have found successful but I believe the experience of most observers is that it is entirely useless.

Calomel in one half grain doses combined with the same quantity of the ~~of the~~ golden sulphuret of antimony, and a little sugar or Magnesia given three or four times a day has been, and it asserted with considerable effect. This and others have been used by various persons; but more is wanting to prove their utility. All that we can probably do to prevent the spread of the disease

is to keep children seperated from those affected with the disease, and by keeping the chamber well ventilated in order to dilute the poison.

I must now close my remarks on a subject so full of interest and importance to the Medical student, and one which when examined by your honorable body may influence to a considerable extent my future career in life. In submitting the preceding pages to your consideration I know that I am submitting them to the severest trial. I know also that there has been a complete failure on my part to do that justice to the subject which its importance demands. I hope however that youth and inexperience will plead somewhat an excuse for me.

I would I gentlemen in your

-mation be unfit for the practice of that profession to which I am an aspiraant, and make your decision accordingly. I will feel as did one of old who told by a superior "you know your duty but you did it not" now suffer the consequences of your negligence.

But should you regard me as worthy of the degree of Doctor of Medicine; it is now, and will continue to be my intention to elevate and promote the interest of the profession as far as I have the ability of so doing.

Very Respectfully
Thos H B Williams
of Mississippi

"Inaugural Dissertation"
on "Bronchitis."
Submitted to the Examination
of the
Provost, Regents, and Faculty,
of the
University of Maryland,
For the
"Degree of Doctor of Medicine"
by
Charles Ed. Hickerson.
of
Baltimore Md.
1856.

"University of Maryland" — Baltimore Feby 14th 1856

"Faculty of Physic"

Gentlemen. In accordance with the Universal Custom adopted by your "Institution" for Every graduating student to present to the "Faculty" a "Thesis" of such Complaint or disease as he may think himself Competent, I have chosen for my Subject,

"Bronchitis"

In Complying with your well known and most judicious requisition, I respectfully claim your indulgence in behalf of the diffidence and inexperience, under which I must necessarily labour. Were I to Consult my own inclinations I should not at so Early a Period of life write my Sentiments on any subject. Having as it were just Entered the threshold of Science, I feel the want of a more mature judgment and Experience, properly to digest the principles I have been taught in this "University". It is therefore with great diffidence that in this instance I yield obedience to its laws, the more so as there is not in the long Catalogue of diseases "to which flesh is heir to" one touch below have not been written — not one on which I could hope to offer any thing new.

Respectfully,
Charles E. Wickersham.

Bronchitis.

This term is applied to inflamation of the mucous membrane, being the bronchi or air-passages of the lungs.

There are few diseases of more Common occurance, and so varied in importance — In its milder form it is of little importance and seldom requires the interference of a Physician — it is nothing more than Common Catarrh, but when it is severe, and the inflamation of a high grade it becomes a dangerous disease.

Bronchitis, presents it self under two forms Acute, and Chronic — The one differing from the other in the greater intensely more rapid progress of the disease — Acute bronchitis, generally Commences with Coryza or Sore throat, the inflamation attacking the tonsels or fauces first, and from there Extending gradually down to the trachea and bronchi but in some instances the inflamation Commences in the bronchi themselves.

Symptoms. The first Symptom of bronchitis, is a feeling of Soreness in the trachea,

with hoarseness and pain which is much increased by coughing or any exertion of the voice, feeling of chillness, lassitude, and weakness, pain in the limbs and the pulse becomes more frequent, cough also is present which at first is hard and dry, after a short time is followed by expectoration of a thin viscid mucous, of a saline taste, resembling in consistance and appearance the white of an Egg, there is considerable dyspnoea at this stage, if we apply our ear to our chest in the first period of the disease we hear only dry rhonchus, showing that the large air-tubes, are the seat of disease, after a short time, we hear another sound which resembles the bursting of bubbles of water; this is what is called "mucous rhonchus" and its presense announces to us that the second stage of the disease has commenced, the secreting stage — now as long as the inflamation occupies only the large tubes, the bubbles are large and uneven, and the respiratory murmur may still be heard — but when the rhonchus is fine and the respiratory murmur cannot be heard, we know by the,

signs in the small tubes, that the disease is serious — When the disease is to terminate favourable all the symptoms gradually subside, the expectoration is consistant and of a yellow opaque colour, and becomes alkaline, the fever subsides, the skin becomes moist, the dyspnoea reduces, the cough is not so distressing, the mucous rhonchus is interrupted, and gives place to a sibilant sound, caused by portions of the mucous partly obstructing the bronchi, the respiratory murmur returns, and the bronchus disapear. — .

In young children a very fatal form of bronchitis of the asthenic kind sometimes comes on in a most insidious manner, it may at first present the aspect of a common catarrh, with coryza, without pain, much fever or marked derangement of the functions — on attentive observation however the breathing is observed to be frequent, accompanied with wheezing, particularly before and after fits of coughing, while the pallidity of the countenance and heavy state of the child's spirits indicate

something more than a common cold, a severe kind of bronchitis, often accompanies some of the Eruptive fevers, and causes the chief danger that attends them.

Another form of bronchitis is known and recognised under the head of.

Asthenic or (Peripneumonia notha). Oppression of the breathing is here one of the earliest symptoms, accompanied by a peculiar wheezing and whistling sound, and on auscultation we find in the universal mucous ronchi as the result of the early presence of a profuse secretion, in all the tubes.

It commences often in paroxysms with a copious and early secretion of mucous.

We are enabled to form some idea of the characteristic features of the disease by the sudden occurrence of dyspnoea often in paroxysms, with a copious, and

Early secretion of mucous, consequent wheezing respiration, the patient speaks with difficulty, is often unable to lie down gasps for breath and coughs violently, and incessantly to free the lungs from the matter which threatens to overwhelm them.

Expectoration, if not free at the onset of the disease soon becomes abundant, and is frothy, from the excessive violence by which he is compelled to cough and it sometimes happens that from the violence the expectoration becomes tinged with blood.

During this period of the disease, an almost universal mucous rhonchi may be heard over the chest, while percussion is occasionally dull in some parts, in consequence of the accumulation of mucous, or the existance of pulmonary congestion.

Febrile symptoms, sometimes appear,

at the Commencement, but they do not always continue long.

Those consequent upon deficient aeration of the blood soon occur and are very striking —.

The face is pale or livid, the lips are purple, the Extremities cool and the Circulation very feeble.

The disease is very dangerous the more so as it has a tendency to run into, pneumonia.

In order to ascertain the progress of the disease, we resort to the system of Percussion, by this practicable test, we are Enabled to ascertain, that the Chest is Clear.

Causes,

As I design this "Thesis" to be only a synopsis, of the disease on which I have Endeavoured, to give my Views, I will not Enter upon a lengthy or Extended,

Opinion of the numerous Causes, which produce this important and distressing Complaint, the Subject has been so ably handled, by the most Experienced of our Medical Authors that I conceive it my duty to Confine my remarks, to those most prominent, and incidental to our Climate.

Cold is the primative as well as the most frequent Cause of "Bronchitis." This disease is most apt to be produced by the Sudden application of Cold or Moisture, to various parts of the body, previously heated by Exercise, and in a state of perspiration —. It appears, sometimes to result from reaction, in the bronchial mucous membrane, upon Entering a heated apartment, after having breathed an intensely Cold air — other Causes are heated air, acrid gasses, or vapours and irritating powders, as Ipecacuanha, when inhaled into the lungs, or air passages.

Bronchitis, appears to occur in some persons, periodically, without any apparent cause. Epidemic influence, is said to be a powerful and not unfrequent cause of this disease, and it is also an attendant on Exanthematous fevers and other diseases, particularly of the chest.

"Diagnosis"

Bronchitis, may be mistaken for phthisis, pleurisy, laryngitis, and, pneumonia,

It may be distinguished from the first of these diseases, by the physical signs, and the history of their case, from the latter, by physical signs, auscultation and percussion.

On percussing the chest in pneumonia we hear dullness, in consequence of the congestion or engorgement, of the parenchyma, of the lungs.

But in Bronchitis,

We have clearness, unless the disease be deeply seated in the small tubes.

On applying the ear behind and underneath the scapula, we hear a distinct, crackling sound, like rubbing a lock of hair between the fingers, this is Crepitation, which is absent in bronchitis, and we have a sign in bronchitis which is not in, pneumonia, viz. Sonorous, ~~rhonchi~~ rhonchi, this is the passage of air through the constricted, air tubes, and this resembles the humming sound of an insect, in its passage through the air.

The sputa is also another diagnostic sign. — In Bronchitis, we have at first, a transparent, ropey and often frothy mucous, with a saline taste, and it then becomes opaque, and white.

Whereas in pneumonia, it is generally of a rusty colour, being mixed with blood.

The appearance of the patient is also of considerable importance in diagnosing ——————.

In pneumonia the face is suffused or flushed and it generally continues of a circumscribde appearance.

In bronchitis the same general appearance, present themselves, when accompanied by high fever, with the exception of the circumscribedd appearance of the face.

In certain cases, where one of the larger tubes happens to be plugged up with mucus, no sounds may be heard over that portion of the lung, but percussion will reveal a clear sound, showing that it is not pneumonia; in such a case, if the patient be directed to cough, the usual sounds will return.

"Prognosis."

Bronchitis, in its simple form when seen early and properly treated, will almost always yield. But if complicated with any other disease, such as pneumonia or that form of bronchitis, which attacks the smaller bronchi, where the blood is not sufficiently aerated most always terminates fatally.

"Anatomical Characters."

We find on examination after death the mucous membrane of the bronchi is reddened, thickened, and sometimes softened. In mild cases, the redness is often confined to the larger bronchi, but in instances, where the disease has assumed a violent form, it extending into the ramifications, of the small tubes.

In such cases; where the disease has proved fatal, in consequence of the undischarged abundance of secreation, the lungs refuse to collapse upon the admission of air into the pleural cavities.

There are instances in which the bronchi are dilated.

"Treatment."

Of the various diseases, of which the human frame is afflicted, that on which we propose to treat is perhaps one of the most common.

From the simple cold which generally falls to ordinary house-hold treatment, and for which every old woman has her specific, to one of the most rapid, and gravest, diseases which come under the observasion of medical men.

It presents itself, under numerous forms and varieties, accruing moreover not only as a primitive disease but supervening in the course of other malidies.

More particularly in the Exanthematous, and other fevers.

It often endangers the safty of the patient, and requires the utmost skill of the Physician, to prevent its pernicious Effects,

The principal object to be obtained, in the treatment of this complaint, is to subdue, inflamation promote Expectoration, and combat the local symptoms, which may arise

Bronchitis, in its milder form seldom requires the attention of a "Physicia", a saline cathartic or a good dose of "Dovers powders" given at night will generally restore the patient.

But if this form of the disease is suffered to continue it may become dangerous and fatal.

When we are called on to treat a case of this nature, as for it has become severe, if the patient is robust, with strong pulse, blood should be taken from the arm, and some of the saline purgatives administered. It may be often necessary, after bleeding, to apply cups to the chest, they should be applyed to that portion of the chest, where the greatest obstruction to the entrance of air is shown to us by auscultation, after a brisk purgative, it will be sufficient to keep the bowels open, by a saline aperient, to which may be added, small doses of Tart. antimony for the relief of the dyspnoea & cough.

Tart. antimony or digitalis, may be used, antimony should be given at first, in small doses, as grip to ½ every hour and gradually increased.

When it excites vomiting it should be,

discontinued for a short time or given in smaller doses. Should the stage of collapse come on and the symptoms of debility show that respiration is greatly injured, expectorants of a stimulent kind should be used, of which the best is the carb ammonia, senaga, and squills.

These stimulating expectorants will often enable the patient to throw off what otherwise would be sufficient, to cause death.

In this stage the alkalies are of great use, when the matter expectorated is thick and consistant, lodging in the air passages, and causing dyspnoea, liq. potass, may be given in doses of m x with wine of ipecac, with the greatest advantage.

If by this course of treatment the complaint does not yield, mercury, should be given in small doses, untill it has produced its effect, on the system.

When we are obliged to resort to counter excitements perhaps the best form of application is a large blister laid over the chest, when the dyspnoea is severe, or a mustard plaster may be used with great effect.

In cases where it becomes necessary, to allay extreme pain, and cause comfort and repose, we may give an opiate, in small doses, or some of its preparations, sulph of Morphia &c.

"In the Asthenic form."

The great score of danger in these cases, is the same as in children, the copious secretion of mucous with unavoidable expiration, we must in these cases, rely on — emetics, and those which cause less nausea are preferable; as sulph of zinc.

Blisters are a valuable assistance but we must always, and early resort to stimulating expectorants, and support the system by mild and nutritious food and tonics, and with these may sometimes, advantageously be combined,

astringents, as Sulph. Quinine, and Tanning.

Hoping this not only to support the system, but by restoring the tone of the air tubes, to prevent the unavoidable secretion of mucous.

In young children, Emetics, are peculiarly, serviable. Especially, ipecac besides the beneficial Effect, they have on the inflamed membrane, the muscular action they produce by vomiting, greatly assists Expectoration, which is so important, at this age.

After the inflamatory symptoms have been subdued, we may resort to the use of, stimulating, Expectorants, internally, and the External application, of stimulating liniements, to the Chest.

Blisters, in these Cases, cannot be as advantageously, resorted to, as in older persons, owing to the danger, of their causing violent, and intractable straggling.

The great danger in Children, is the copious secretion of mucous, preventing the proper, aeration of the blood, the poisonous blood deteriorating, the brain, causing a diminution of nervous force, hence resulting loss of muscular power, to cough up the mucous, and this accumulating in the air tubes, renders death, by suffocation imminent.

Yours Respectfully,

Chas. E. Wickersford.

An Inaugural dissertation on
Acute Bronchitis
Submitted to the examination
of the
Provost, Regents and Faculty,
of Physic
of the
University of Maryland
for the degree of
Doctor in Medicine
By-
Booth Kennedy
Maryland.

Acute Bronchitis.

In submitting this as an inaugural thesis, I am sensibly aware of my incompetency to advance any original ideas upon a subject well nigh exhausted by the diligent researches and careful investigations of Medical Historians. That it should command a large share of the Pathologist's attention, is apparent, when we take into consideration its frequent occurrence in our climate, the importance of the Organs implicated, and its occasional intractable character. In considering this subject, I propose, first, to give a general Anatomical discription of the Bronchia.
Secondly. The pathology of the disease with its existing causes.
Thirdly. Physical signs and Diagnosis.
Fourthly. The treatment.

The Bronchi arise from the division of the Trachea at the mid dorsal vertebra. The left descends obliquely beneath the arch of the Aorta, to the corresponding Lung, while the right being the largest, passes off at right angles to the right Lung. Upon entering the Lung they divide into two

two branches and each of these divide and subdivide to their terminations in small dilated sacs, the pulmonary cells. The Trachea has entering into its composition, Fibro-Cartilaginous rings, which become very irregular in shape in the Bronchi and in the smaller ramifications are lost altogether. The fibrous and muscular coats at the terminations of these tubes become very thin and are probably continued upon the lining membrane of the air tubes. The Pulmonary Artery terminates in Capillary vessels, which form a net-work upon the parietes of the Bronchial Cells and then converge to form the Pulmonary Veins. Nutrition of the Bronchial tubes is sustained by the Bronchial Arteries, branches of the Thoracic Aorta, the venous blood being returned by the Bronchial Veins.

Lymphatics are also distributed upon the surface and in the substance of the lungs, terminating in the glands, which are located at the roots of the Lungs, around the Bronchi, and at the bifurcation of the Trachea. The nerves originate from the pneumogastric and the sympathetic,

forming two plexuses, the anterior Pulmonary plexus ramifying upon the front of the root of the Lungs, and the posterior Pulmonary plexus on the posterior portion of the root of the Lungs — The Bronchial nerves, from these plexuses pursue the direction of the Bronchia and are distributed to the mucous.

Bronchitis the term used to designate inflammation of the Bronchial tubes, is presented to our consideration, under two varieties, Acute and Chronic, differing from each other in the intensity of the inflammation and rapid, rogue of the one, when compared with the tardy, but insidious and too frequent fatal issue of the other.

The former constituting as it does a large proportion of diseases of temperate latitudes, presents itself under different shades from the simple Catarrh, producing hoarseness and interruption to health, to the severer types, characterized by the most alarming train of symptoms.

The most frequent varieties, commence, or rather succeed to inflammatory affections of the nasal cavities and frontal sinuses — Frequently the inflammation originates in the fauces and

tonsils, and traverses by continuous extension through the trachea to the Bronchial tubes. Sometimes however it originates in the Bronchi, and then it is chiefly owing to some Pulmonary susceptibility — The first symptoms which usher in an attack of Bronchitis, are a sense of roughness and soreness in the Trachea, attended with a frequent disposition to clear the throat. These symptoms increasing, produce an amount of titillation which excites Cough, accompanying these symptoms is more or less hoarseness, together with a sensation of pain and oppression, with tightness in the Chest. Febrile symptoms generally make their appearance about this period attended with an aggravation of the Cough which is now accompanied with an expectoration of a thin saline fluid which by its irritation rather increases the cough and adds to the discomfort of the patient, until its change to a thicker quality and more abundant quantity, gives the signal for a termination of the disease, indeed, no sooner does this change in the sputa occur, than an amelioration of the distressing symptoms occurs — The pulse loses its frequency, the

dyspnœa abates, and the skin assumes its natural temperature &c. Such is the ordinary course of a mild attack of Bronchitis, or in common parlance a "bad cold". The same disease however, when extending itself over the whole Bronchial Apparatus, accompanied with additional intensity of inflammation, presents an array of extremely formidable symptoms — Here the fever appears at the outset attended with head-ache, nausea, loss of appetite, prostration of strength and frequently pains in the limbs; the tongue foul and the urine scanty and high colored. Dyspnœa is urgent, particularly at night, and is much aggravated by coughing. There is also pain in the chest, frequently referred to the sternum, accompanied with great oppression and tightness — The pulse is generally hard and quick, but differs according to the circumstances. The sputa is at first glairy and sometimes tinged with blood, and usually scanty — but very little relief follows to the cough or dyspnœa from its evacuation — An aggravation of all the symptoms usually takes place in the evening;

Between the fourth and eighth day, the disease begins to decline, in favorable cases. The Dyspnoea abates and is chiefly experienced in the morning. The expectoration becomes pearly and less abundant and affords some relief to the Dyspnoea, in short, there is a general amelioration of all the symptoms. If however, the case should prove intractable, or fail to respond to medical treatment, symptoms of Collapse appear, the pulse becomes feeble and irregular, the face pallid and anxious, and bathed in a cold sweat, the cough feeble and inefficient to relieve the lungs of the accumulated mucous, which, by preventing the proper oxygenation of the blood, frequently destroys the patient by Apnoea. Such is the usual course of severe Bronchitis, which is frequently more formidable and rapid in its issue than Pneumonia itself.

We come now to consider the origin or cause of this dangerous disease. Amongst its most fruitful sources, may be reckoned, Cold, when applied to the body, while overheated, either by exposure to a damp atmosphere, or subjection

to sudden alterations of temperature - for instance
attacks of irritating gases may also produce it,
and perpetuate it by a continuance of the cause.
We find it also accompanying some of the
eruptive diseases, this complication giving them
their most serious type.

In an investigation of this disease we find it
impossible to diagnose or trace its extent and
exact locality, by proper symptoms alone. Hence,
we bring to our aid the science of Auscultation,
which reveals to the ear the most important
knowledges - therefore, I deem it necessary to
give here a special description of the sounds,
produced to the ear, and the condition of
the tubes, giving rise to these sounds. Tume-
faction and swelling of the mucous membrane
of the Bronchial tubes, is a consequence of
inflammation, of course the calibre of the
tube, becomes diminished in proportion to
this tumefaction. This contraction occurring
at certain points, so modifies the passage
of air through them, as to give rise to
certain sounds, as in a musical instrument.

The variety of these sounds depending upon the amount of constriction of these tubes. We generally find upon applying the ear to the chest, a whistling sound, accompanied by the ordinary murmur. There is also frequently a graver sound, and this indicates the presence of the disease in some of the larger tubes. These are respectively designated as Sibilant Rhonchus and Sonorous Rhonchus, and will, if caught, or, declare the character of the disease, before general symptoms have made their appearance. As the disease progresses, we find the sounds omitted, of a different character, a bubbling noise is heard, (Mucous Rhonchus) occasioned by the passage of air through the liquid secretion which has taken place, constituting the second stage of inflammation.

A tolerably accurate estimate of the extent of the disease may be formed by understanding the difference in these sounds. Thus, when the inflammation occupies the large tubes, the bubbles are uneven and the respiratory

murmur can be still heard. If however, the Rhonchus is fine and distinguishable thro' the whole of the respiratory act, we have reason to believe the smaller Bronchi are implicated and the danger proportionably increased. In this variety we may find some slight dulness on percussion in addition to the other physical signs.

If the disease exhibits a disposition to terminate favorably, we find other sounds characteristic of other changes occurring in the secretions, which now becomes more consistent. The passage of air through this gives rise to a crushing or sibilant noise, produced by a partial obstruction of the tube, by the adhesive mucus. Sometimes there is a total obstruction in one portion of lung from a ma- of adhesive mucous, and thus we have Dyspnoea. In this case we might suppose an increase of the inflammation or the supervention of Pneumonia, but percussion will, by giving a resonant sound, clear up the difficulty. Post mortem examination reveals the presence of a frothy liquid, similar to the mucus expectorated.

Purulent matter is sometimes found, especially in rapid cases, and the mucous coat is injected and sometimes softened.

Although there exists a strong similarity between Pneumonia and Bronchitis, attention to the physical signs will generally point out the distinctive characters of each. Thus the rusty sputa so characteristic of Pneumonia, together with the crepitant Rhonchus and Bronchophony, which are absent in Bronchitis, will establish the existence of Pneumonia. The prognosis depends upon the extent of the disease and the age of the patient. An extremely anxious countenance, coupled with lividity, indicates an imperfect arterialization of the blood, and add to this the existence of universal Mucous Rhonchus, coupled with great Dyspnoea and we have direct evidence of threatened dissolution.

Having treated generally of the Pathology, Symptoms, and means of diagnosing this affection, we come finally to a consideration of its treatment.

In the vast majority of cases, the mildness

of the attack, the patient from calling in professional aid, a resort to domestic remedies being sufficient to arrest its progress. If however, we find these simples unavailing, a resort to the following treatment will be found in most judicial during the first symptoms. Administer a purgative with a few grains of Ipecac. followed by a saline draught. This followed with a hot pediluvium, the patient getting into a warm bed, and making free use of warm diluent drinks and abstinence from animal food, will generally be found to relieve the milder forms. If however, these measures should be unsuccessful, and cough and other symptoms increase, we must resort to such remedies as will promote expectoration and cause the inflamed membrane to pour out its secretion. To attain this end small doses of Tart. Antimony or Ipecac. given in nauseating doses answer every purpose, occasionally combining an anodyne to ease the urgency of the cough. If however, the case proves obstinate and the symptoms are

evidence of extensive bronchitis, our treatment must be correspondingly active. Venesection proportioned to the age and strength of the patient, followed by Diaphoretics. Should, however, we have doubt regarding the propriety of general bleeding, in view of the age and general or peculiar temperament of the patient, we may judiciously resort to local depletion, either by cups or leeches, followed by Caustic irritation; in addition to these measures, we give Calomel and Opium or what is better Dover's Powders, at intervals, corresponding with the severity of the disease. The administration of Tartarized Antimony is one of the most powerful adjuncts to the Antiphlogistic treatment, in view of its controlling influence over the vascular system. It should be administered in large doses, so as to the risk of exciting vomiting. Its favorable influence is enhanced, by combining with it the tincture Digitalis, discontinuing the latter, if the pulse becomes intermittent.

Should the collapsed state ensue, attended with great prostration, and difficulty of expectoration, we must resort to stimulating expectorants, among which the Carbonate of Ammonia, and Seneca Snake Root occupies, deservedly, a high position. In addition to this, we must administer supporting diet, and by every means, guard against the accumulating of mucous in the lungs, which the patient through debility may be unable to evacuate.

In the Asthenic form of the disease, blood-letting is rarely admissible, our chief endeavors must be here directed towards restraining the secretions, and facilitating its expectoration, by means attended with the least expenditure of strength. These indications are better fulfilled by the exhibition of tolerant doses of Tart. Antimony, together with the application of blisters, and the use of Digitalis and Squills, repeated at shorter intervals in the course of the disease, as the case

time guarding against any undue obstruction by an early resort, if required, to Carb. Ammonia, Serpentaria, and hot tea.

In that form of the disease, depending upon repelled eruptions, an early resort to counter irritation, with such other measures as are calculated to restore the eruption, constitute the chief indications.

The foregoing description, embodies the most prominent features in the history of this disease. If attacked judiciously, with appropriate treatment, it usually proves tractable, but unfortunately it occasionally passes into Chronic Bronchitis, engendering a train of symptoms as disastrous to health as Phthisis Pulmonalis itself, and in a large proportion of cases, leading the victim, with slow but inevitable certainty to the grave.

Booth Kennedy.

Finis.

An Inaugural Dissertation on Pneumonia.

Submitted for Examination to the Provost, Regents, and Faculty of Physic of the University of Maryland.

For the Degree of Doctor of Medicine.

By

William [illegible]
Petersburg,
Virginia.
Late of Londonderry,
Ireland.

To

John Lettsom [illegible] M.D. Esq.

Surgeon to Middlesex Hospital

In respect for his worth

and

In gratitude for early kindness

This humble tribute

is inscribed by

His late Pupil

William Ellis Glenn.

Pneumonia:—
Inflammation of the Lungs.

The task of writing a dissertation presents two difficulties; first that of choosing a fit and proper subject, and second that attendant upon its correct construction.

The student, when about to commence this duty, naturally asks himself, "What disease or what matter in connection with disease can I enter upon, with the fairest prospect of success which will at the same time make an important addition to the little store already in possession? Shall I join in the mania for novelties, for the sake of being singular, or shall I choose that concerning which we cannot know too much?" The answer may be as talent or inclination may direct. For my part though I pick the chance of engaging upon a subject so hackneyed as the one I have chosen, I believe its importance

fully

fully justifies all and the strictest attention that could be employed. Inclination therefore leads me to take my selection from among the affections to which the respiratory organs are liable. But at the same time as a young beginner, I am not forgetful of my inability for the duties which now devolves on me as one of the graduating class.

I need not allude to the immediate necessity which exists for these organs being in a proper state of efficiency, their important functions sufficiently indicate that necessity, over dependent on the lungs for the elimination of the poison (carbon) generated by decay of the various tissues, and for the introduction of the great renovator (oxygen) of the blood, and consequently of the body in general, the system at once sympathizes with a diseased condition of these organs, or with impaired action in their part.

Pneumonia, or Inflammation of the Substance, or Parenchyma of the Lungs, then is the disease which forms the subject of this Thesis, a disease which I think stands pre-eminent among the most momentous ills that flesh will be to."

Inflammation in any form is troublesome and [illegible] characterized in an external or visible part by pain redness and [illegible] but when it is attended with difficulty in our diagnosis, as when it extends to an internal organ it becomes much more troublesome. [illegible] peculiar or [illegible] examination the diagnosis is necessarily more difficult.

Varieties

Pneumonia may either be double or single, partial or general. It may affect both lungs or only one lung, but is occurring a part only [illegible] or [illegible] the whole of the lungs. [illegible] secondary in the lungs, [illegible] or it may be [illegible] to be.

It is said also to be very [illegible] the [illegible] cautious [illegible] strength, which in contradistinction to the acute form which tends to a termination [illegible] in a shorter time and in which the symptoms are more severe in their type.

The right side is more commonly affected than the left, according to statistics furnished by Central Force as this is in the primary form or secondary pneumonia with lung involved affected.

The lower lobes are more frequently the seat of inflammation than the upper, as a general rule however it will be found that the inflammation extends from the lower to the superior lobes.

Resolution is the invariably attendant upon pneumonia. The movements of the tubes breathing, a lack of and the signs of sympathetic inflammation. In the majority of instances the pleura is involved to some extent, it extends to the pleuro-pneumonia. Situation this action the lung in pneumonia, in a local means of speaking.

Accompanying a certain state of the system it is called typhoid-pneumonia. Then connected with derangement of the liver secretion - bilious - pneumonia.

According to the natural action of

of the lung affected. The disease is divided into lobar, lobular, interlobular and vesicular. It may be stated that this is not explicit. Rather to include all under the three varieties which are more like nature:

Lobar or Croupous Pneumonia.
Lobular or Notable Pneumonia
Typhoid Pneumonia —

— Anatomical Nature —

Lobar Pneumonia. In this form there are three marked stages: first, congestion; second, hepatization; third, gray hepatization.

First stage the congestion is in the lobe. The substance of the affected part is a bright red color, firm, crepitant, heavy, sinks in water under pressure. The air in the vesicles is displaced by a fluid and in the air is but, though heavier than normal, it floats when placed in water. Air is in it, ergo, the term "Splenization".

Mechanical, general, from, is liable to be mistaken for, other, inflammatory, pneumonia, it is difficult to distinguish between them.

time. If the congestion be not in a depending portion of the lung, we may with certainty decide, upon its being inflammatory or mechanical, or from some other cause, be in the most dependent parts only, if then the congestion appear in this latter situation we can only judge from concomitant symptoms or from the previous history of the case.

Cot. Gould says that the color is usually of a brighter red and the stenosis greater. If such be the fact, it could afford assistance only to those who have had several opportunities of witnessing both conditions.

The second stage of hepatization occurs, supposing the inflammation be not checked in its early stage. This presents the yellow character much greater than the last, and now sinks in water, the color is a lake red, sometimes inclining to a pink red. It is much softer and more easily lacerated and torn.

When cut into, it has very much the appearance of an incised liver. Among the term "hepatization" and the fact that escapes

is much less in quantity, but thicker in consistence and less fluid than before. There is little or no crepitation upon pressure. The deepened grayish red color is generally uniform throughout the part, but sometime it is variegated in appearance. In areas with a lineage small granules appear which are considered to be the air-cells filled with pus.

When the thorax is laid open the lung does not collapse as in the natural condition. This is caused by the smaller quantity of air and the larger quantity of fluid contained in the lung.

In its further progress the inflammation extends to the stage of purulent stage, sometime is called the condition of gray hepatization with all its properties.

The dense and solid state of the affected part continues. The deepened grayish red color is superseded by a yellowish or more decided grayish appearance. The parenchyma is so much softened as to be easily reduced to a semi-fluid state by pressure. There is a macerated tissue

purulent yellowish matter, which is carried mechanically forward (as the pressure of a foreign body such as the handle of a knife or even the finger) become filled with this pus, and which readily may be mistaken for small abscesses this purulent fluid, when expectorated tinctured with blood.—

Abscess of the lung seldom occurs; at least, it has been discovered, only in very few instances, viz: when inflammation attacks the pleura or the bronchial tissues in other parts or organs of the body and extends to the suppurative condition, the consequence abscesses are formed; but does it then that abscess is a rare event in inflammation of the lungs? Find explanation in the very "When the inflammation is extensive throughout the lungs, large portions of those organs necessarily become hepatized and the interior dies before the tissue has had time to form no abscess." An abscess is said to occur when a small portion will hepatized for thus there is time for an abscess to be formed.

Therefore

Therefore abscess may occur in cases that terminate favorably, seldom however in those ending fatally.

Some discrimination is necessary not to mistake collections of pus in tubercular masses and cavities for genuine abscess.

Abscesses of the liver, pleura and of the adjoining parts may open into the lungs, and form cavities which become filled with pus.

Gangrene also occurs in the lungs, it certainly does sometimes occur, but very as the result of acute inflammation only.

The color of the sputa when gangrenous is of a dirty olive or green. The sputa is mixed with air and exhaled in most of the cases of gangrene during life. This condition of the lungs is very evident by the abominable fetor accompanying it, rendering the task of attending to the patient an extremely disagreeable one.

Gangrene divided into diffuse and circumscribed; the latter is the more frequent. It is generally a sequela of depraved and interrupted circulation, the lung

more than on the serous or the outer surface of the inflammation and is more acute than the chronic or moderate than we have seen hepatization.

Lobular or Interstitial Pneumonia.

This variety - as its name implies - is more common among children than adults. It presents to the eye a peculiar mottled Hepatization and is frequently secondary.

In the congestive stage the parts affected have a mottled or marbled appearance by reason of the inflammation occurring in lobular patches or spots. These patches may run into and communicate with, one another with tissue intervening. They are of a deep red color, are somewhat elevated, are firmer than the surrounding texture, and sometimes are indurated or mottled. In the bronchi there is crepitation; and a certain amount of fluid is yielded under pressure.

In the second stage the patches are still more firm and more compact; the crepitation is slight and the parts sink readily in water.

In

In the third stage, the consolidated spots do not differ materially in consistence from the healthy texture; upon pressure they yield a bloody fluid.

Tubercular Pneumonia.

In this variety, there are usually only two stages viz; the congestive and an incipient suppurative condition.

The disease seldom passes the congestive stage; if however it continues to progress, it passes into the suppurative condition and frequently terminates fatally, from fever in the great majority of cases.

In either condition or stage; the diseased part is so dense, and so gorged with blood as to sink in water. It is generally secondary or attended upon some other affection of a debilitated character.

Such being the morbid anatomy in the least subject of the malady in the three more prominent forms; the next inquiry should be into the physical and the general causes which declare its presence in the living subject.

Signs and Symptoms

Gentlemen I shall advert to the physical signs,

Lobar Pneumonia. Before the use of percussion and auscultation, pneumonia in many instances had its entire course unsuspected by the physician, The general symptoms may not always be present or sufficiently distinct, The sputum, the cough, the pain, may each and all be wanting, or may be greatly modified, And on the other hand, the pain - for instance - may be acute, as in pleurisy, and not dull as usually in pneumonia, In such cases the physical signs elicited by percussion and auscultation, if not valuable, are without which assistance, the diagnosis must be obscure and uncertain,

In the first stage of lobar pneumonia, we depend almost entirely upon auscultation. If to the ear applied to the chest a peculiar crackling sound is discovered to have succeeded to the vesicular breathing of health - Expiration alone

this

this sound to the quick successive crackling produced by sprinkling salt over red-hot coals. If the ear lies upon the sound received by rubbing close to the ear with the finger or the thumb — a close resemblance. These similarities are familiar to every man.

In the earliest contents of the inflammation, the minute crepitant rale is heard to mingle with the ordinary vesicular murmur; at first it is heard at the moment of commencing inspiration, and, at that period of the expiration, towards the close of the first stage however — the more advanced, the crepitation being heard at the close of inspiration and the commencement of expiration —

So long as the vesicular murmur continues to be heard — no matter how obscurely — the inflammation may be presumed to be slight; its entire cessation is coincident with increased crepitation, indicative of the second stage.

When the second stage is fully established, this crepitant rale gives place

to bronchial respiration or sometimes no sound at all is heard. The latter is in consequence of the respiration ceasing in the upper lobe of the lung from mechanical obstruction —

The bronchial murmur (a sound similar to that produced in blowing through a small tube or quill) denotes that that part of the lung over which it is heard is becoming or has already become hepatized. Not uncommonly in one part of the lung bronchial murmur is heard and respiration in another, and this evidences the further advancement of the inflammation in the one part than in the other.

Allied to the bronchial murmur is bronchophony. This is occasioned by the hepatized lung conducting the vocal resonance and the bronchial murmur to the ear as the rarer and denser substance would do. Of course bronchophony is heard only when the patient speaks, the murmur being present until a change either for the better or for the worse takes place —

In this stage (that of hepatization) percussion may be employed with advantage, and it will be found that there is dullness and sometimes decided flatness. By placing the patient flat upon the chest, and desiring the patient to speak or cough a vibratory motion will be communicated to the walls of the chest and rendered sensible to the touch.

Pleuritic-respiration-a sound indicating of extensive inflammation in the lung, is the result-is often present and is the consequence of the intact part endeavoring to compensate by increased exertion for the inefficient action of the part diseased.

Lobar Pneumonia Cont^d. General Symptoms—

The general symptoms begin with feelings of increased languor and debility—acting exertion and loss of appetite. These are shortly followed by chills—hotness of skin, frequent pulse, difficult respiration, oppression and pain in the chest, a dry and sometimes moist cough accompanied in a day or two afterwards by a peculiar expectoration which is one of the most characteristic symptoms, and sometimes delirium—

The

The fever is always an attendant on pneumonia, and may vary greatly in degree, being sometimes mild and gentle, and, in other cases, The skin hot and dry - the face flushed - the urine scanty and highly colored - the tongue moist and usually coated with a white fur, but sometimes clean and red. There is often vomiting and diarrhoea, the pulse hard and strong, and thirst with loss of appetite -

The dyspnoea is generally in proportion to the extent of the disease. Sometimes it is so slight as to escape the notice of the sick, and at other times it becomes great distress to the patient. It is also increased by lying on the affected side, and the patient endeavors to avoid the burthening of it by taking a sitting posture.

As the disease advances the breathing becomes more hurried, the patient takes shorter pauses, so as to recover breath -

The pain is generally acute and rather severe in the beginning, soon becomes obtuse and dull, and often leaves a sense of

on the extent to which the pleura is involved, for the pain attends the inflammation in the pleura. The sharper is the pain

[illegible] generally consists in a dull, obtuse aching the beginning of the disease, and at times a slight uneasiness only will be felt. In such cases the extent to the latent illness is ascertained only by pressure, by percussion, under any circumstances. However it may be recognized by pressure, by coughing, by change of position or by a deep inspiration.

The Cough commonly is a regular accompaniment to the disease but varies greatly in severity. In a few instances it may be wanting but towards the second or third day is attended by a peculiar viscid expectoration of a rusty reddish color. This reddish appearance is caused by the presence of blood which is intimately mixed with the mucous sputa.

The sputa increase in tenacity

and

and in toughness is the inflammatory process, adhering frequently to the bottom and sides of the vessel containing them.

In the advancement to a favorable issue the sputa become less tough, in consistence and more clear in color. During its advancement to an unfavorable termination, they, the sputa, increase in tenacity and become purulent. Still further, as the sputa either cease altogether or their tenacious adhesiveness or the weakness of the patient — in either case the sputa accumulate in the air-passages, and death is produced by suffocation — or the expectorated matters turn to a bloody juice color and become of a watery consistency.

The delirium is an ugly symptom, happily it does not occur in every instance. It denotes extensive congestion of the lungs, and is produced by the circulation through the brain of imperfectly aerated blood. It is oftener met with in secondary than in primary cases.

Lymphadenitis

Synopsis of Symptoms.

First Stage. Expectation or inspiration mingled with the vesicular murmur, pain rather sharp and acute. Oppressed breathing, increased by lying on side affected. Cough at first dry, then accompanied by pain, and at two skin hot and dry. Pulse hard and strong, and thirst with loss of appetite. This stage well marked.

Second Stage. Bronchial murmur and bronchophony. Dullness on percussing, pain obtuse and dull. Dyspnoea great. Speech frequently interrupted and difficult. Sputa tough and tenacious. Pulse fluctuating and at times feeble. Febrile excitement and sometimes slight delirium.

Third Stage. Rather difficult of diagnosis. The physical signs avail little or nothing. But it may safely be presumed that the suppurative condition exists when the expectoration ceases suddenly or when it becomes of the "plum juice" color and consistence. When the face and lips present a livid appearance, and when there is much weakness and delirium. This stage is usually fatal.

Solution

Lobular or Infantile Pneumonia

In this variety of pneumonia, the physical signs are frequently the only evidence of its presence - the general symptoms being often obscured by those of another or preceding affection - It is therefore rather difficult to diagnose; this difficulty being further increased by the restlessness of the child - and mention its entire course totally unsuspected -

In the first stage ausculti - discovers respiration mingled with the mucous sounds - (all things being favorable) but the rale is so obscured as not to be discovered at all. However when further advanced there is a sub-crepitant murmur which shortly gives way to the bronchial respiration and resonance

Percussion yields dullness and often flatness at the sides and posterior parts of the chest -

The general symptoms - often obscure - hurried and oppressed breathing - high fever Cough seldom accompanied by spit to be seen as the child is not able to expectorate - pulse

frequent

frequent and strong — and pain indicated by the cries of the little patient. Convulsions are not unfrequent and may be induced by suddenly disturbing the child. As the attack tends to an unfavorable issue, the respiration becomes still more hurried, the child unable to cry — vessels, the face assumes a livid hue, the pulse steady and weak, gives way, succeeded with torpor frequently, and lastly death produced by suffocation from the accumulation of the sputa or infiltrated pus in the air passages closes the scene.

In Lobular Pneumonia, the physical signs are dullness and sometimes flatness on percussion. The auscultatory signs do not exhibit any crepitation; instead of which there is an obscure mucous murmur.

The general symptoms are similar to the obtuse or acute — according to circumstances, the location of which is not easily defined in the patient. Cough accompanied by rusted and copious sputa which are less tenacious than those in lobar pneumonia. If, however,

a weak

a week and seldom before and discharges the stools are blackish and have a disagreeable odor.

The skin, at one time is hot and dry, and again cold and clammy and is usually generally covered with small red or purplish spots, and the tongue is coated with a brownish color.

Delirium is a common symptom, and frequently from the beginning. There is also stupor rendering the patient unconscious of surrounding circumstances and sometimes even of pain.

This variety is far more fatal than any of the others. Recovery in many instances does take place but is prolonged and tedious and the disease very liable to relapses.

Typhoid pneumonia is developed generally by malignant diseases such as small-pox scarlatina and frequently succeeds to typhoid or to typhus fever.

Diagnosis

Pneumonia is more likely to be confounded with bronchitis, or with pleurisy, or phthisis than with any other affection. From bronchitis it may readily be distinguished by the peculiar intensely-injected rusty-colored sputa by crepitation, by bronchial respiration and the vocal resonance, and by the absence of the wheezing or whistling sound of bronchitis.

In pleurisy, the pain is always acute and usually referred to one spot, it is always increased by a deep inspiration, frequently obliging the patient to stop short very suddenly in his speaking, (vulgarity "catched in the breath") the cough is hard with a simply mucous sputum, or the expectorated matter is streaked with blood and there is no crepitation. Such of these symptoms differ from those that in pneumonia.

From phthisis it may easily be distinguished by the sudden onset of the attack and the inflammatory nature of the disease,

Prognosis.

In lobar pneumonia the prognosis is favorable, when occurring as a primary disease and when not complicated with any other affection. When it attacks a person of strong and good constitution, and when it has not extended to the intestine.

It is unfavorable, when it attacks persons past the meridian of life, when it recurs in irregular or retarded metastasis, and when it has advanced to the suppurative condition.

In lobular pneumonia the prospects are less encouraging, in all cases, great dyspnoea with profuse diarrhoea augurs unfavorably.

In typhoid pneumonia the prospect of a favorable termination is still less propitious than in either of the preceding, and though recovery takes place sometimes, yet the majority of cases terminate either fatally, or in pulmonary consumption.

Under any variety or form, great dyspnoea, in conjunction with a threatening

feeble pulse, excessive diarrhoea, delirium, fœtid breath, watery and flesh-like sputa, are highly fatal symptoms and augur an unhappy termination.

— Causes —

Sudden changes of weather, exposure to cold and wet; the imbibition of cold drinks when in a state of increased temperature and perspiration; violent exertion, or action of the lungs in singing, or blowing on wind instruments; excesses in drinking, are among its most frequent causes. In some instances it has been induced by a sudden shock, or fright.

It prevails more in winter than in summer, in cold climates, than in warm.

Neglected cases of bronchitis, pleuritis, tubercle, or tumors in the mediastinum induce pneumonia.

It invariably accompanies to a greater or less degree advanced cases of phthisis.

Termination & duration.

The disease terminates, in most, attended by some discharge of the profuse perspiration, diarrhoea, &c. and sometimes by a critical expectoration. The symptoms of the first stage soon, the fever subsides and finally ceases altogether, as the inflammation diminishes; the patient usually retains some dyspnoea, cough for a few weeks after convalescence, and unless great care be had relapse may take place.

In resolution accompanies the stage of hepatization begins, the crepitant rale ceases in the lungs, murmurs restored. The general symptoms at the same time, decrease in violence & are lost.

If resolution takes place in the second stage, a slight decrease of crepitation begins again to be heard, and gradually developes itself, more & more, at the same time, the bronchial breathing and the vocal resonance, decrease and in a few days disappear,

Ultimately

Ultimately the resolution gives place to the vesicular murmur, crackles subsides, and health is again restored to the organ.

Septic-pneumonia usually lasts longer than lobar, or it assumes a change either for the better or for the worse. The return to health is protracted and tedious, and there is great danger of a relapse.

Typhoid-pneumonia is more fatal in its termination than, either of the others, and though seldom acute, it is not the less dangerous on that account.

From the beginning of the attack the patient in the majority of instances day by day, gradually grows weaker and weaker, and more careless of the termination. Death generally takes place in exhaustion.

The duration of pneumonia varies usually between ten and fourteen days, the average being about ten days.

Treatment.

Treatment.

Lobar or Croupous Pneumonia. The first endeavor should be to relieve the lungs of a large amount of labor, and to reduce the inflammatory action. Both of these ends may be gained by the abstraction of blood from the arm, particularly in early cases.

A free incision being made into one of the veins of the arm, the blood should be allowed to flow until some impression is made, such as relief of the dyspnoea; until the pulse be diminished, or until syncope is about to occur. If the more urgent symptoms be not thus abated or if they recur after the blood-letting, the bleeding should be repeated again or even two or three, several times, until decided relief is obtained or until the system begins to bear further depletion.

The circumstances which indicate bleeding are, excessive and difficult breathing, severe and acute pain, and a full frequent and hard pulse.

But

But sometimes a high state of inflammation may exist with diminished pulse. — This may happen if the congestion be so extensive as to cause partial asphyxia. — Notwithstanding, blood-letting may be employed as it might increase the pulse in the first instance by relieving the congestion; should the pulse however become more feeble, instead of fulling, the abstraction of blood must be discontinued.

Local bleeding, by means of leeches or cups, evacuating the bowels by an active cathartic are generally advisable; the entire antiphlogistic treatment, in fact, may judiciously be adopted.

After the bleeding has been employed the next important remedies are tartar-emetic and calomel. The tartar-emetic should be administered, firstly, in preference to the mercurial combination, small and frequent doses, and though at the onset it may cause nausea and vomiting, the stomach shortly becomes habituated

habituated to it. It should be simply exhibited in a mucilaginous mixture, to which may be added a few drops of the tincture of opium if purging or too much vomiting be excited. The dose may be from the one-fourth to a whole grain every two hours, gradually increasing the quantity and the frequency of the doses.

"The bowels meanwhile should be kept gently open, and the action of the skin promoted and excited by the proper measures. In the course of two or three days sedatives may be used with advantage, continuing still the tartar-emetic.

"In general, under this treatment, if properly employed, the inflammation will be subdued and the decay of the patient arrested. More particular of the disease be confined to its early stage.

"Should these means fail, recourse must be had to the narcotic course, and the tartar-emetic discarded. A combination therefore of some sedative

of

of mercury, say calomel, with ipecacuanha, and opium may be employed, the objects being, to bring the system under the mercurial impression as speedily as possible; to assist the expectoration, and to afford relief and ease to the patient.

If the calomel should cause purgation, the pill-mass (pilula hydrargyri) or the mercury-with-chalk may be substituted. If any idiosyncrasy of the system exists against the exhibition of mercury, mercurial ointments or unguents may be rubbed in externally. In either case, the mercurial treatment should be pursued until slight ptyalism be induced.

Dr. Watson considers that the tartar-emetic remedy is indicated in the stage of congestion only, and the mercurial in that of hepatization.

In some cases, with either of the foregoing treatments, irritation after inflammatory excitement

subsided) by means of blisters, cataplasms, tartar emetic ointment &c might be used.

The employment of blisters is indicated by diminished fever, difficult expectoration, oppression or pain in the chest, and dyspnoea. In every instance a large blister is better than a small one.

As the disease declines or progresses, relief is afforded by turpentine, diaphoretics, and sedatives. Squill and Senega, either of which combined with tart: antim: or digitalis (in case of fear of the former (tart: antim:)) may be given to alleviate the pectoral distress, and to lessen the circulation.

The inhalation of the steam of hot vinegar is highly beneficial sometimes, when the sputa are tough and tenacious.

Purgatives are generally of little or no value and indeed the mercurials are injurious.

M

In advanced cases when evidences are present that the vital powers are giving way, and when much prostration exists; moderate stimulants, nutritious diet and astringents are broken down by time, carbonate of ammonia, chicken broth, and the compound chalk mixture, &c,

Oil of turpentine as a stimulant is said to be of advantage when diarrhoea is not present, but care should be taken lest the sulphate of quinia should be used.

In cases where the patients have been addicted to intemperance, the accustomed stimuli should not be abstracted totally, the amount may however be reduced.

When lobar-pneumonia occurs in debilitated, aged persons, or as the sequel to a previous disease, great care is required in the treatment, depletion by venesection in such instances is rarely borne, frequently the local abstraction of blood only, can be adopted —.

Fowler

Lobular or Infantile Pneumonia.

As infantile-pneumonia is liable to be associated with some such other affection as the measles, hooping-cough or scarlatina, greater caution must be exercised in the treatment of it. It does not however demand any very different class of remedies.

In the milder cases of the child under 1 year of age local bleeding by means of cupping or leeches should be employed. General bleeding is seldom advisable. The quantity of blood abstracted and the number of leeches should be proportional to the age and strength of the patient and to the violence of the symptoms.

Blood may thus be taken again and again until a marked change takes place in the patient's condition and almost in all. In advanced cases, however, bleeding in any way cannot be well borne and should not be used.

In the severe cases stimulants are indicated

inclined to be torpid, they should be cleared by a dose of calomel or mercury-with-chalk followed in an hour or two by castor oil. Subsequently the bowels may be stimulated occasionally by enemata.

More frequently however there is some lassitude, particularly in young children. Such being the case, the compound chalk mixture might be given advantageously by preventing too great a discharge.

In such cases the tartar emetic is inadmissible but the syrup of squills with hippo. wine may be substituted, with the same doses at the same time, of mercury-with-chalk.

If the patient should be cleared over three or four days of age and not troubled with diarrhoea, minute quantities of the tartar-emetic might be given with occasional doses of calomel and ipecacuanha and hyoscyamus.

The warm douche to the limbs and trunk may be used with caution. Counter irritation, viz., in mild cases of mustard

Inveiglement

inspirations, & often all liniments or plasters may be employed after the inflammatory condition has been reduced, and if the patient has strength sufficient to cough,

To relieve the cough

mucilaginous drinks may be administered; and if the child has not been weaned, it should be supplied with breast milk by means of a spoon. The patient ought in every instance to be placed in a reclining position on the back, and it should never be suddenly moved or disturbed, so as to avoid the probability of convulsions.

In cases where there is much debility, the moderate use of stimulants is demanded, as well nutritious food as brandy, wine, milk &c.

Supposing the crisis takes place and convalescence established, exposure to cold or wet must be carefully guarded against as relapses are not infrequent

Typhoid

Typhoid Pneumonia. General bleeding in this form of pneumonia is more risky. In fact, debility and prostration seem to be characteristic of the affection, and the loss of blood, taken in this way, might prove a serious disadvantage.

In a very few instances, as where the patient is very robust, and the disease occurs as a primary affection; and in some cases of much cerebral disturbance, a little blood might cautiously be taken by means of cups or leeches.

The more safe treatment would be, the administration of mercury; commencing by giving an emetic, followed immediately by a cathartic; then the mercurial course, and this should be persevered in until the gums become affected.

When symptoms of debility and torpor occur, mild stimulants are indicated; and if such would not, the more powerful should be given. Wine, cordials, brandy &c are the necessary stimulants.

Sp

If the prostration be excessive, the sulphate of quinine may advantageously be given with wine. Oil of turpentine, if said to be of service is recommended by some.

Should the bowels — as in the majority of instances they are — be loose and inclined to diarrhœa; mild astringents ought to be employed. The diet should be nutritious. Therefore beef-tea, arrow-root, jellies, rice, butter, and eggs may be allowed.

In a late medical journal there is an article on the employment of the hot douche to the spine in typhoid-pneumonia". It is employed and highly recommended by the author of the article in question, Dr. T. T. Jones of Virginia, as an adjuvant and a curative in cases where "there is a torpor in the superficial vessels, a tendency to collapse, and an urgent necessity for the production of immediate reaction".

The mode of its application is this. The patient is placed with his face downward,

and

and several gallons of water "near the boiling point, as barely to allow the immersion of the hand" are poured on the spinal column; after which he is wrapped up in a blanket and put to bed. In fortunate cases the patient will be perfectly well in twenty-four hours, the fever subsides, the pulse and respiration are quiet, and the usual means adopted to bring about a complete return to health.—

In every variety of pulmonary inflammation, the treatment depends upon the previous and the then condition of the patient, upon his habits and his constitution; in fine it is indicated by the circumstances under which the affection may present itself. This same law applies to every other malady.—

The Medical Practitioner must, therefore, not have to rely upon any blind rule or example, but should be prepared for every contingency, and should depend solely upon a sound and correct knowledge of the science, based on a good common sense. Without these he should refrain from practice, with not to mention a disadvantage to others,

And now, I must needs here close my remarks on this subject — a subject so replete with interest and import to the Student of Medicine.

Faulty, as this dissertation may be in doctrine and in diction, lacking that originality which might have gained for it some little credit, it claims merit only from the importance attached to the subject, and from its being a mere effort. Such, as it is, I leave it with the reader — not without anxiety — that it may meet with some consideration at your hands.

"Vel ille, qui mota esse nimis, fato, super illum
"Ad merita parva illius sunt.
"Sui vocare ad examen, tuit
"Aut Caesar, aut nullus."

Inaugural Dissertation

On

Acute Meningitis

Submitted for Examination

To the

Provost, Regents & Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

By

Ins Sparrow Smith

of

Maryland

There are few diseases to which the human frame is liable so prolific of such consequences, and which at the same time yield so readily to prompt and energetic treatment, as those we are about to consider;

There seems to have been great difficulty in arranging the affections of the brain, happily for us however this is of little practical importance, since the treatment they require are so much alike. — In selecting Meningitis as the first of our discourse we shall treat of it as diffused inflammation of the cerebral membranes alone, or confined as it generally is, with more or less inflammation of the brain itself. — Symptoms commence. The patient may be seized and ushered in with convulsions, or he presented as it

Commonly is by preliminary Symptoms
lasting so longer numbers of days, depression of spir-
its, vertigo, and impaired appetite along
with the usual febrile phenomena which
precede the inflammation, are intense
headache, flushed face, suffusion of the
Eyes, a vivid appearance of Conjunctiva,
The patient is hardly sensible to light
and sound, especially to light, which causes
him to close his eyes forcibly, and he prefers
when open, our low to be kept darkened.
The patient is restless, tosses himself about
in bed, and is unable to sleep. Epistaxis
frequently, but frequently occurs, and
sooner or later delirium sets in, sometimes
mild, though in the majority
of cases wild and violent, the pulse
is frequent and hard, respiration
hurried, skin hot and dry, the tongue is
furred, and sometimes clammy. Vomiting

which is among the most characteristic symptoms, often also the first, at onset from the commencement. It comes on generally gradually, though not always so, after a while which varies much in different cases. A few of the symptoms appear. The delirium gradually yields to drowsiness or stupor, from which the patient may at first be roused, but at length this drowsiness or stupor deepens into coma.— The pupils are now dilated, sight wandering are impaired and convulsions, the lip twitch then at first in tetanic but rigidity of the muscles and contraction of one or more of the limbs, also takes place. The convulsive movements probably at the last clothes or at lips and effects are also common. The pulse which was frequent at first, is now slower and intermittent, respiration is interrupted

with deep sighs, the urine is retained or dribbles away without the consciousness of the patient, in the latter case it may accumulate to so great a bulk as to distend the bladder, if not drawn off by the attendant.

At length signs of exhaustion are added to those of coma & apoplexy, the spasmodic contractions give way to palsy, or are mingled with it, the pulse is feeble, frequent, and threadlike. The skin cool, pale and bathed in perspiration, the features look haggard, the sphincters relax, the excretions are passed involuntarily, and the patient dies completely insensible. This is the common course of the disease, though many of the symptoms mentioned are absent, indeed it is probable that all are never seen in any one case. In many cases an occasional constitutes the main feature of the case. In others, stupor or coma predominates

from the commencement. In some instances the attack is said to have commenced with sudden loss of strength, & to the lower lumbar region pain in the back is the most constant, beginning as it does at commencement. it is seldom absent during the continuance of the disease. Next to pain in the back vomiting is the most constant and characteristic symptom, it may begin with the disease and remain till its close resisting most obstinately all the remedies employed in allaying vomiting. The course and duration of the disease are very uncertain. In violent cases death may take place in twenty four hours from the commencement of the attack, oftener between the second and fourth days. Still more frequently from one to three weeks, and it is seldom known to go beyond the seventh week

Anatomical characters. The morbid appearances

-ces but with in the brain [illegible] [illegible]
The dura mater seldom participates in the
inflammation which the results of injury
to the part or separates from disease in
its bony walls. In such cases it appears
to be thickened, is either thin & dura
ulcerated or gangrenous, and is occasionally
covered with a layer of coagulable lymph
or pus. The arachnoid is said to undergo
but little change here and there it may
exhibit signs of sanguineous infiltration. It is
not uncommonly opaque and is said to
be sometimes thickened, and to present opaque
-ing points which feel [illegible]
Rilliet & Barthez however state, "that in those
cases which they examined the arachnoid
retained its smoothness, gloss and transparency,
even when bathed in pus on each side
when the patient died early, in the lateral pus
pus is sometimes found spread over the

membrane, at a later period, the pus becomes concrete, and resembles false membrane. In some instances the brain presents the appearance of veins, and is to all appearances perfectly healthy, this case is comparatively rare however, and but at the most frequently signs of inflammation exhibit themselves. When the brain is cut it is found dotted with red spots, with small clots or stains of blood.

Causes. The predisposing causes are many. A common cause of this as of other inflammations is a vitiated state of the blood. Individuals of a sanguine temperament, short neck, and choleric temper are said to be more liable to the disease, than persons of a different constitution. There is probably a certain peculiarity of the brain which gives a predisposition to the disease. Age appears to exert considerable influence over the predis

position, for while it is not in [illegible] in New born infants and in children under two years of age, it is [illegible] again during until the age of puberty, the susceptibility then increases. Not to decline until life begins to decline. Males are much more subject to the disease than females, this may partly be accounted for, from the fact that, they are more exposed to its causes, such as exposure to the sun, the intemperate use of alcoholic liquors &c. The exciting causes are, [illegible] &c. Exposure of the head to an intense heat, strong liquor [illegible] in children, and in children the irritation of teething —

The diagnosis of brain disease, and of various other diseases is difficult. Typhus fever, Scarlatina, may not in exciting causes, [illegible] the brain are frequent causes of the latter, and should be [illegible] attended —

Diagnosis. The disease most commonly mistaken for simple meningitis is tuberculous meningitis, and that the two affections, as they occur in children are frequently confounded, there seems to be little doubt, when one in view of external symptoms, without any [illegible] there is every reason to fear that it is tuberculous. When all these signs are absent there is room for hope that it may be simple, but even in simple meningitis there is greater serious excitement in the [illegible] Now, next and first, the delirium is more violent and the symptoms generally are more acute, compelling the patient to retire his [illegible] earlier than in tuberculous meningitis. The time of life may also assist in the diagnosis, for while the tuberculous seldom occurs before the end of the second year, the other may not [illegible] occur. There is another [illegible] of the brain, which it is of great importance to distinguish from simple meningitis [illegible] tuberculous

Consequent upon a debilitated condition of the system. This is most [illegible] occurs in the delirium of [illegible] and has received the very appropriate name of Delirium Tremens. It may also be caused by the [illegible] Mura- low long continued [illegible] diseases may [illegible]. It is highly important not to mistake this disorder of the brain for [illegible] treatment exactly opposite: the one yielding readily to stimulants, which would in the other [illegible]

With a little [illegible] attention [illegible]

In Delirium Tremens the face is pale the featu- res in collapse the surface [illegible] line, the pulse [illegible] always fearful of some impending evil - Prognosis - This is [illegible] disease [illegible] if seen early [illegible]

are greatly in danger of the patient's recovery.
It is quite from known that in an organ
so essential to life and so delicately organized
as the brain, and in which the organ
-ity take place under acute inflammation.
the hope of recovery are much diminished unle
-ss the case be seen and treated at an early
period. It is therefore very important to recognize
the nature of the disease at its commencement
while it is yet within the [illegible] dis-
-treatment. The principal measures in this dis
-ease are blood letting, purging, and the applica
-tion of cold to the head. In some instances
the [illegible] is a [illegible], [illegible] provided
[illegible] bleeding is the most effectual.
The blood should be taken from a full stream
and allowed to flow till a decided impressi
-on is made on the pulse, from twenty to twenty
four ounces may be taken [illegible] at
[illegible] after the pulse has become [illegible]

Cups or leeches to the temples, behind the ears or to the head. May be employed with great advantage, leeches are generally preferred as they discharge the patient sooner, after the first bleeding. Blood may be taken twice or thrice in a day, depending at the discretion of the practitioner, quantity should generally be left to the opinion of the practitioner in importance to the disease, varying.

Calomel seems to be better adapted to this disease than most other cathartics, being less liable to be thrown off from the stomach, it should be given in such proportion as to produce the necessary evacuations, which exists in most cases. Its operation may be assisted by an injection of Castor oil, Epsom Salt, or what is better in adults the extract of Jalap, or compound extract of Colocynth. Repeating the dose of purgatives in acute inflammation of the brain

uses this very strong language. In all the forms of the disease, active purgation appears to be necessary, from which we have the most satis-factory results, and although bleeding is never to be neglected in the earlier stages of the disease, my own experience is that from repeated trials, the effections of the most alar-ming report take place under the free flow of strong purging, than under any other treatment. In most of these cases, repeated, full and repeated bleeding had been previously employed, but without any apparent effect in arresting the symptoms" he recommends Croton oil as the most convenient purgative for this pur-pose. Tartar Emetic may be given in the intervals of the other treatment if the stomach is retentive — the dose should be from a quarter to half a grain every two hours. Lees suggestions are very useful in this stage. The hair should be remo-ved either the upper or lower one side of the

to the head. The best application is [illegible]
powder or in some [illegible]. It should
be placed in a bladder or some other flexible
membrane, and only partially filled, so that
it may fit the [illegible] of [illegible]
it should be [illegible], and a sudden bad
reaction takes place, should it not be at
hand, cold water may be [illegible]. When
it is applied by means of [illegible] [illegible] in
the water, and [illegible] [illegible] [illegible],
some surgeons recommend a large sponge
balloon, which is so [illegible] to fit the [illegible]
wet with the water, another method of employing
cold highly efficacious, is to pour a stream of
water, warm by [illegible], from a distance of two
feet or more, upon the [illegible], the [illegible]
very depending on its influence, and [illegible]
superintendence by a [illegible] surgeon.
produce the most serious consequences —
The constant trickling of water [illegible]

by some writers. May be effected by means of a sponge and funnel, [illegible] the head. In addition to the measures already mentioned, we may mention the employment of the warm pediluvium, or hot foot bath, [illegible] the [illegible] when [illegible] to be done, [illegible] applicable to the stage of exhaustion. Should the application not subdue the disease, or the case be seen too late for the effectual use of that measure, the constitutional effects of hemorrhage should be produced as soon as possible, for this purpose [illegible], or the hemorrhage from the nose be given in small and frequent doses, to produce the impression, the [illegible] may be bled in on the inside of the limbs, the [illegible] be [illegible] when its effects become [illegible]. When symptoms of [illegible] [illegible] appearance, with diminished frequency of pulse, [illegible] of the [illegible] stage [illegible]

pupil &c. Recourse should be had to [illegible]
ter to the scalp. It should not be [illegible]
during the stage of [illegible], as it [illegible]
more and to the irritation. But the [illegible]
seems to be that it is deferred too long rather
than employed too early. It should be [illegible]
ed as soon as depletion becomes imperative
from the weakness of the pulse, to do [illegible]
it should be large enough to [illegible] the
whole scalp and be kept on for [illegible] to
twenty four hours. When symptoms of prostra-
tion ensue, upon the cessation of the inflammatory
stage the use of wines, stimulants & nutritious food becomes
necessary to prevent fatal effects. The patient is
now in a critical way, but by the judicious
administration of stimulants & nutritious food, they
are occasionally saved, and when we remem-
ber that no harm can be done, this the
last resource should not be [illegible]

An

Inaugural Dissertation

On

Typhoid Fever

Submitted for Examination

To The

Faculty of Medicine

of The

University of Maryland

For The

Degree of Doctor of Medicine

By

William E. Hodges

of

Maryland.

To this common febile affec-
tion authors have at different times applied
names to suit their own peculiar views each
finding fault with the original but never
forming one which would give a clear
[illegible]
in a less faulty manner its character. Time
[illegible]
one will answer as well as another provided
all receive it as relating to the same thing.
[illegible]
the consideration of the [illegible]
[illegible]
This like most other febile diseases usually
commences with a slight rigor or chill follow-
[illegible]
[illegible]
[illegible]

toms &c, Sometimes [illegible]
so [illegible] so insidiously that
it is almost and sometimes quite impossible
to form any idea of the exact time of its
setting in or commencement. The patient
often considers it to be only a deranged
stomach from over eating or [illegible]
trivial [illegible]
[illegible] without [illegible]
use his own expression completely used up,
yet not so sick as to be compelled to
remain in bed and the idea of sending
for a physician [illegible]
in the patient's mind, with the thought
of [illegible]
taking some nauseous dose, the doctor
is often not called in [illegible]
till the first week of the [illegible] nearly completed, thus undoing his chance of escape from
death [illegible]

[illegible]

patient sinks under its first blow without the coming on of any accession. Epistaxis is a symptom which adds very much to the probability of the disease being typhoid fever [illegible] always being the case and [illegible] is of no importance except as a [illegible] always ceasing spontaneously and consequently requiring no treatment. This disease [illegible] accompanied with more or less clear [illegible] of [illegible] medicines act in small [illegible] portion [illegible] and irritable condition of [illegible] mucous membrane of the intestinal ~~canal~~ ~~[illegible]~~ canal. The [illegible] red appearance, pulse frequent but feeble and easily compressed [illegible] from one [illegible]

[illegible]

in persons of irritable [illegible]

[illegible] more [illegible] The [illegible]

first [illegible] [illegible]

[illegible] [illegible]

there [illegible] [illegible] [illegible] [illegible]

week [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible]

with more or less of delirium. At the expiration

of six or seven days there is generally a [illegible]

if all the [illegible] will be [illegible] of

some new ones [illegible]

and [illegible] [illegible] [illegible]

the latter symptom [illegible]

[illegible] [illegible]

is flea bites, from which [illegible]

ched, by the latter [illegible]

minute black point [illegible]

[illegible] [illegible] [illegible]

[illegible]

[illegible]

and the dull aching pain in the head [illegible]

little, and start as if troubled by unpleasant

dreams, appetite diminished [illegible]

anorexia. Deafness which [illegible]

[illegible]

[illegible] the disease advances

the skin becomes universally hot or what is still

worse [illegible]

pulse grows more [illegible]

[illegible]

fissured, this [illegible]

[illegible]

moistened [illegible]

fluid before [illegible]

[illegible]

[illegible]

place to coma [illegible]

remains, the [illegible]

[illegible]

or possessed of large sums of money. Sometim[illegible]

[illegible]

[illegible]

imagined [illegible]

if Walkeny to [illegible]

her to have [illegible] as he

expected some [illegible]

fine. Sometimes at [illegible]

the bonane begin [illegible]

fuller and less freq[illegible]

[illegible]

symptoms, and [illegible]

the other friends of [illegible]

will [illegible] of a fit [illegible]

are however often dis [illegible]
of all good [illegible]
relapses in [illegible]
dies in a [illegible]
[illegible]
[illegible]
failing efforts of nature recovery will be slow
and tedious. Besides the symptoms already
enumerated there [illegible] of [illegible]
to warrant a separate [illegible]
is frequently harassed [illegible]
the greater part [illegible]
accumulation of gas [illegible] found in
the large intestines. [illegible]
times so great as to [illegible]
[illegible]
Cough is often an accompaniment [illegible]
with mucous expectoration, the [illegible]
[illegible]
[illegible]

[illegible] not only attended [illegible] to energetic [illegible] tion. In the latter [illegible] [illegible] are often aggravated [illegible] are sometimes involuntarily evacuated [illegible] being insensible to the demands of nature. The physician should always enquire particularly at each visit whether the urine has been duly voided, indeed it would be better for [illegible] over distended will often pass [illegible] drop by drop and the attendant [illegible] catheterism for free evacuation whenever if not always a certain sign of a [illegible]

found [illegible]
of [illegible]
all of [illegible]
case, that we [illegible]
with, for there [illegible]
as an example [illegible]
malad[illegible]
whole nosology presents at various
different conditions of the system [illegible]
very different ones. Almost all cases however
occurring during an epidemic [illegible]
exhibit predominant characteristics at one time the
nervous have the ascendency, the patient suffering
comparatively little [illegible]
head symptoms will be com[illegible]
an aggravation of the thoracic and abdom[illegible]
symptoms. Again they differ with re[illegible]
mission, some partaking more or [illegible]
[illegible]

[illegible] more or less local inflammation along the intestinal canal. The nose bleeds are sometimes profuse and marked [illegible] practitioner.

Anatomical lesions. With [illegible] inations being so few there is still some uncertainty resting on many things connected with it while there are other lesions so constantly found present that they are now considered essential to this affection. There is scarcely an organ in the human body [illegible] not at different times [illegible] found in a diseased state. The liver is constantly found enlarged and hardened, at others softened [illegible] canal have each in turn and sometimes all of them compared been more or less diseased. Spleen generally enlarged. [illegible]

[illegible]

[illegible] Dr. [illegible]

have to which the attention of [illegible]

[illegible]

opposite its attachment to the mucous, are

composed of a number of circular patches [illegible]

by simple follicles. An opportunity for noticing

[illegible] at the commencement

[illegible] [illegible] the

earliest time at which [illegible]

have been [illegible]

[illegible]

[illegible]

attack. They are found enlarged [illegible]

[illegible]

the latter co[illegible]

though not [illegible]

decided tendency to heal by granulation.

mentine glands, the mucous follicles scati[illegible]

form an opinion where there are so many authors of distinction and deserved eminence men who have [illegible] Prof. [illegible] both in hospital [illegible] an instance in [illegible] be the result of contagion. If contagion [illegible] must be so only feebly and under [illegible] On the other hand we find in Italy [illegible]

following "We have in the amplest abundance [illegible]
[illegible] men alike eminent in their profession each bring
forth many facts well supported by logic to [illegible]
the soundness of their respective positions. Since
then men of such distinction throughout the
[illegible] are divided in their sentiments [illegible]
shall a student of medicine form his opinion
[illegible] can do is to state his belief and patiently wait the
[illegible]
of this error, such at least shall be my mode of
procedure. Now it is a well established fact, that
in all ages when professional men have been
divided in their opinions each contending for the
opposite extreme, that the truth has generally been
found at an intermediate point, [illegible]
[illegible]
Now [illegible]
[illegible]

convictions (and as before said) wait for time and experience to prove or disprove my assertions. My [illegible] under certain circumstances may and does become contagious, as when many are crowded together in ill ventilated apartments, as in hospitals and [illegible] prevails among the poorer classes who cannot or will not take [illegible] only when the poison is in a concentrated form and [illegible] influence. The [illegible] most obnoxious to its influence seems to be between [illegible] entirely exempt from it, and since it each attacks [illegible] necessary to [illegible] the sudden [illegible]

has the least tendency
between health and disease.
often impossible to tell with
[illegible]
with [illegible]
[illegible]
The slowness of the attack, the occurrence of shifting
the [illegible]
the [illegible]
[illegible]
[illegible]
a correct diagnosis. Sometimes however nearly
all the most characteristic symptoms
[illegible]
must then judge by the exclusive method
[illegible]
most likely to be confounded and from
[illegible]

able and [illegible]
it is impossible to discriminate [illegible]
[illegible]

present the following differences rendering a
decision tolerably easy. In typhus fever the bowels
are almost always constipated and there is
seldom hemmorrhage from the bowels even in
[illegible]
countenance presents a darker hue, the disease
[illegible]
[illegible]
[illegible] rose spots of petechiae caused by extravasation
[illegible]
[illegible]
is not accurately made [illegible]
[illegible]
difference as the treatment is very similar
[illegible]
[illegible] of typhus. [illegible]
[illegible]

from being always fatal. Some epidemics of it are much more so than others the [illegible] some being as much [illegible] more than one fourteenth; the prognosis should [illegible] be always guarded and must depend [illegible] are continued delirium, great thirst dryness [illegible] or carelessness of patient as to his condition, colliquative sweats, continued diarrhœa, and [illegible] being unable to feed himself [illegible] position from want of strength. The favorable signs are diminution of heat in the skin improvement in the secretions, patient [illegible] on around him, and arouses to a consciousness of his situation. Treatment. [illegible]

recommended and used [illegible]
now considering. Emetics, cathartics, bloodletting
[illegible]
and [illegible]
by the desire to know what has been the chief
cause of such diversity among medical men, and
the old saying that "Doctors will differ" has no
[illegible]
Since however of late ~~years~~ years the disease has
been better understood there seems to be more
uniformity in the modes of practice, and nearly
all have come to the conclusion that "To treat the
[illegible]
The strong tendency which such protracted diseases manifest
[illegible]

such different modes of practice [illegible]
to; for as diseases will sometimes [illegible] fatal
[illegible] management, so nature [illegible] triumphing both over the disease and the good intentions but mal-practice of the physicians
[illegible] recovered [illegible] the medicines [illegible] best [illegible] as well as the patient [illegible] will imagine that he has been [illegible] the [illegible] can do no good [illegible] the [illegible] patient to the "West India [illegible]" [illegible] blessed by those [illegible] endeavoured [illegible] disease [illegible] for [illegible] cures are [illegible] "patient killers" the most [illegible]

nature in her [illegible]
may be express myself, for [illegible]
[illegible]
letting b[illegible] in many instances a very good adjuvant to other treatment. If there be much delirium or headache, or tendency to local congestion in any other part and the general inflammatory symptoms [illegible] high, much advantage may be obtained from a moderate venesection but no more should be [illegible]
[illegible]
the depressing influence of the dis[illegible] days; the patient should therefore when venesection is employed be bled in the erect posture. If further detraction of blood become necessary [illegible] by cups or leeches indeed it is sometimes good [illegible]

Cathartics are only useful [illegible]
[illegible] when carried to a greater extent by causing irritation which is apt to be followed by diarrhoea. Should there be a tendency to diarrhoea they must be wholly proscribed. Should di[illegible] a serious complication it must be checked by opium with lime, acetate of lead or other suitable astringents. [illegible]
[illegible] utility. Where the patient sets badly at night and the head symptoms are not very violent or it is not otherwise contra-indicated a dose of Dovers powder will be highly beneficial in procuring for the patient a good night [illegible]
Diaphoretics should be given in all stages, and the practitioner must select such as will best suit [illegible]

and potassa is an excellent [illegible]
days, when it does not create too much irritation
[illegible]
will answer very well especially [illegible]
is hot and dry. Opinid of [illegible]
necessary when nervous symptoms predominate
[illegible] effectually. Cold water
should be used [illegible] effect [illegible] ways
[illegible]
they create chilly sensations and warm ones
substituted. All local grievances which arise
must be carefully attended to. Should the patient
complain of much tenderness of abdomen on
pressure [illegible]
highly beneficial particularly if followed by a
large warm poultice. Ice should be applied to
the head when there is much delirium or heat
[illegible]
with a brownish tint, a judicious course of nurse,
[illegible]

purpose is the blue pill.

[illegible]

[illegible] green in small doses frequently

[illegible] become clearended with,

it must be relieved once or twice daily by

cathartics. The disease having now reached its

[illegible]

and debility, and it will be necessary

[illegible]

tonics, of the bitter quinine sulphates answers

remarkably well, when a more diffusible excitant

[illegible] will be very appropriate, sometimes brandy or even dilute

strong: remedies have [illegible]

should always be [illegible]

[illegible] always fall off, [illegible]

[illegible] should be [illegible]

[illegible]

[illegible]

digestible. The patient [illegible]

[illegible]

special to cleanliness, [illegible]

[illegible]

room. [illegible]

[illegible]

purpose the estimate of time will [illegible]

will.

An

Inaugural Dissertation

on

Dislocations of the Hip joint

Submitted to the examination
of the

Provost Regents

and

Faculty of Physic

of the

University of Maryland

For the Degree

of

Doctor in Medicine

by

John S. Stites
Accid Co.
Md

We find this accident occurring in various directions, and from various causes; influenced by the age and physical conditions of the patient. It is found most generally taking place in the middle aged, as the strength of the bone is then more capable of resisting fracture, to which it yields rather than to displacement in youth and old age.

The dislocations of the femur are reduced into four principal classes; viz. Upwards on the dorsum of the Ilium; backwards into the Ischiadic notch; downwards into the Obturator foramen; and forwards on the Pubis.

That on the dorsum Ilii, is much more frequent than either of the others, from the closer relation of the parts, and the

exposure of the bone to direct blows.
It is caused generally by direct and sudden force, applied to the trochanter major: such as falls upon pavements, or from a great height, driving, or wrenching, the head of the bone from its cavity and rupturing the capsular ligament.
The diagnosis of this injury is rendered difficult often from its similarity to the fracture of the neck of the bone.
If an examination be made when the patient is standing, the dislocated limb will be found from one half, to two inches shorter than its fellow.
The knee is advanced and turned inwards, with the toes resting upon the instep of the opposite foot.
The trochanter will be depressed, less prominent, and nearer the superior spinous process of the Ilium, than in its

normal state; the motions of the limb will be very limited; and the power of abduction almost entirely lost.
In emaciated persons, the head may be felt distinctly rolling above the edge of the acetabulum when the knee is rotated inwards. The hips will not be found symmetrical; the injured one being less round and full than the uninjured. In order to distinguish this from a fracture of the neck; we must take into consideration, that a fracture would permit motion of the limb, almost as extensive as prior to the injury. It can also be drawn down to its natural length; the shortening being made greater or less, at the will of the surgeon. Crepitus is a very important sign, and can be produced and recognised readily, by rotating the

the limb, or pressing the trochanter inwards. In dislocations, motion of the limb is difficult to effect; even when force is used, and is then very limited. The invariable and permanent, inversion of the foot, and shortening of the limb are almost infallible diagnostic symptoms of a dislocation; as neither can be altered unless fracture of the brim of the acetabulum exists. Another important sign is, that the bone in turning describes an arc, of which the neck is the radius, whereas in fracture, the femur turns upon its own axis.

Dislocations backwards, into the Ischiatic notch, are in point of frequency next in order. In this the head of the bone, is found upon the pyriformis muscle; between the upper boundary of the

Sschiatic notch and the sacro-sciatic ligaments, behind the acetabulum, and somewhat above the centre of that cavity. To permit such displacement, the body must be flexed upon the thighs, and the knees inclined inwards at the time the force is applied. The blow can take place at either foot or knee, tho' the latter seems is present, the most favourable point; as the force would not be broken by the yielding of the knee joint; or be so widely distributed as when transmitted through the whole limb. It can also result from a blow, received upon the posterior part of the pelvis, or sacrum, when the body is in the stooping position; the belly being in such cases entirely flexed upon the thighs. The general appearance of this injury, very much resembles the preceding.

the foot is inverted, but instead of the toes resting upon the instep of the opposite, (as in the former case) the ball of the great toe is found rising upon the ball of its fellow.
The comparative length is of some moment, it being from one half, to an inch shorter, in the present instance.
The trochanter is found back of the acetabulum, and pointing in that direction, rather than towards the anterior superior spinous process of the Ilium. The head of the bone can form for us no guide here, as it can seldom, or with great difficulty be felt.
The joint is so firmly fixed, that motion of any kind is almost impossible. From these slight symptoms, nearly any one of slight experience; would be able to diagnose correctly.

But there is yet a very characteristic sign of this injury, which cannot be mistaken, by any, viz, the impracticability of straightening the whole body in the recumbent posture, if the trunk be laid flat, the thigh immediately resumes the erect position; or if the thigh be forcible extended the loins follow at the same angle, nor will this deformity be relieved, untill reduction has been effected.

The third character of this injury, is dislocation downwards into the obturator foramen; it is comparatively rarer than either of the preceding. It is caused sometimes by heavy weights falling upon the pelvis; when the body is greatly bent forwards, and the legs separated from each other. It is however more commonly produced by severe wrench-

-ing, accompanied with sudden ab-
-duction, and extension of the limb.
The great trochanter in such case,
becomes a fulcrum, and by the
leverage of the bone, the head is
prized over the brim of the acetab-
-ulum, and thrust into the foramen
ovale. Here we have a set of symptoms,
entirely different from those pre-
-viously considered. The limb now
becomes lengthened; the heel reach-
-ing from an inch and a half to
two inches below the other.
The whole limb is advanced, but
showing decidedly neither eversion,
or inversion; the foot is nearly par-
-allel with its mate, but from its
anterior position, the heel is lifted
from the floor. When attempting
to maintain the erect position, the

trunk is somewhat flexed upon the thighs, caused by the tense and stretched condition of the psoas, and iliacus muscles which are easily felt.
It is difficult to feel the head of the bone, except in thin persons and before swelling has taken place.
The trochanter is depressed.
A very ridiculous mistake, in my opinion, has been spoken of by some surgeons as occurring in diagnosing this injury for "morbus coxarius."
That such blind mishaps would lead to the most distressing results, there is no doubt; but that such could often be made by men of ordi-
-nary acquaintance with their profes-
-sion, does appear somewhat doubt-
-ful; as the two sets of symptoms are distinctly marked, in almost every feature.

The gradual onset of one, and sudden accurence of the other, would seem sufficient in the first instance to indicate the true affection.
Even if we suppose both to have existed for some time, and the patient unable to give any information regarding their commencement; it certainly would be a black spot; upon the pages of surgery to be unable to recognise them.
We find the distance between the anterior superior spinous process of the ilium; and the trochanter major preternaturly great. In dislocations, all the surrounding parts are marked by rigidity, while in morbus coxarius, they are soft, flabby, and atrophied. The characteristic mark however, is that in dislocations, the

limb is lengthened, in morbus coxa-
-rius shortened.

The last of the four varieties, of hip dislocations, is up-
-wards, and forwards, on the ramus of the pubis. This form is consider-
-ed both as a primary, and secon-
-dary injury, tho' most generally occuring as the latter. The primi-
-ry, or direct, is caused by the bone being driven upwards, and forwards, either by force striking the trochan-
-ter, or the limb while it is extended greatly backwards: The, consecutive, results from a direct blow upon the foot, or knee, when the head of the bone is dislocated downwards into the Obturator foramen, by which it is driven up into the same place, as from the direct injury

In this instance the limb is shortened to the extent of an inch; The knee and foot are strongly abducted, and resist any attempt to rotate them inwards. Just above Poupart's ligament, on the inside of the femoral vessels, may be seen and felt the head of the bone, forming a globular tumour, which may be recognized by its corresponding movements with the thigh.

There are four other dislocations mentioned, all of which however are rare, 1st Upwards, with the ball immediately under the anterior superior spinous process of the ilium, the neck is between the superior and inferior spinous processes, and the trochanter turned backwards. When this occurs the limb is shortened

fully three inches; and so fixed as to resist any attempt made to lengthen it; the limb is everted, and all motions either of abduction or adduction, effected with much pain and difficulty; flexion however can be produced to some extent. 2nd Upwards, with the ball between the anterior inferior spinous process, and the junction of the ilium and pubes, the trochanter being directed backwards. The shortening here is less, being about two inches; extreme eversion of the foot, and a tendency on the part of the injured limb to ride over its fellow, and rest the heel on the instep of the sound limb. The head of the bone can be felt under Poupart's ligament; the limb is capable of limited motion in all directions, except rotation. 3rd Dislocation downwards on the tuber-

-asity of the ischium. The limb is lengthened to the extent of three, or three and a half inches, the leg bent on the thigh, and the thigh on the pubes; the thigh is extended abducted, the knee and foot everted, and the trochanter depressed. The head of the bone is on a level with the tuberosity of the ischium.

4th Dislocation of the ball on the tuberosity of the ischium, the limb is here shortened, and the only marked difference, from the latter case, is the inversion of the foot, and the limb being immovable. These four minor species of the injury, being of such rare accurence, I deem a detailed account, both unprofitable, and unnecessary.

Reduction, when on the dorsum of the ilium, is accomplished, by placing the patient on his back, either

on a table or bed; when a sheet, or pad, is placed under the perinæum, and carried up in front, and behind the body, over the shoulder of the affected side; and fastened firmly, or given to assistants as a mode of counter-extension. The means of extension are next arranged, by applying a sheet or other soft material to the ankle, with the "close hitch." Some recommend its application to the femur, immediately above the condyles; but the great liability of its slipping, and bruising the integument, presents at once, a formidable objection. When all is thus in readiness, Chloroform should be administered by an experienced person, by pouring it on a handkerchief, and inhaling it, diluted with atmospheric air, until the arm falls dead, and

irresisting, and the whole muscular system is entirely under its influence. Now extension should be made in the direction the limb presents, untill the muscular power is somewhat overcome; when by sudden abduction, and rotation, the head is in a majority of cases returned with an audible snap into its socket. Many Surgeons of the present day, insinuate indeed, that rotation, abduction, and adduction, are sufficient in a majority of cases, to effect reduction without any extension. This was first observed by the late Dr. Physick in attempting to enlarge a supposed laceration of the capsular ligament; by forcing the bone violently to and fro, when to his surprise, it was suddenly reduced. Prof. Smith related an instance in one of his lectures, of an ignorant negro of some fame as a "bone setter" accomplishing reduction

in this manner on a patient, who had been handed over by several respectable physicians, as incurable. Not unfrequently after reduction has been effected, it becomes necessary that some means be resorted to in order to prevent a second dislocation, from muscular contraction, slight injuries &c; especially if complicated with fracture of the brim of the acetabulum. For this purpose some advise that the knees be firmly bandaged together; others that direct extension be made on the limb by sheets or cords, and thus maintained, Long splints for this object are almost innumerable. These however are now but mementos of youthful surgery; mile stones serving but to mark the progress of her modern developement; for we find in Prof Smith's anterior splint an auxiliary, subserving at once

all the indications for which so many and so complicated instruments were previously required. The excellence of this splint consists in the perfect adaptation which can be made of it to every part of the limb; there being no unequal pressure, pads, collars, &c, are useless. With the hip piece attached, it can be applied to a recent reduction, and suspended at a proper angle, so as to accomplish at once, support, protection of the injured part, and uniform extension of the limb, without giving the patient a moment's discomfort. Reduction of the second dislocation, from the ischiatic notch, is to be effected (with a few exceptions) in the same manner. The patient should be placed on the sound side, and the extending

force be made across the middle of the opposite thigh. The counter extension should be made nearer at a right angle to the pelvis, than in the former case, in order to lift the head of the bone over the rim of the acetabulum. A third line however, interlocked with, and at right angles to the counter-extending line, would accomplish quite as good, if not a better purpose than the two only.

The third variety, is reduced by either of four ways. 1st The patient is placed on a table, on the uninjured side, and his pelvis fastened securely to the table by a belt; a band is then placed close up to the perineum, under the thigh, and attached above the table to pulleys, or given to an assistant. The surgeon then takes hold of the foot, or leg, and by the powerful leverage is mostly enabled to

prize the bone out of the cavity while the muscles, and band carry it into the acetabulum, 2nd Place the patient on his back, and make counter-extention by a band placed around the pelvis, so as to draw against the injured side. Extention is made upwards, and outwards, and the limb used as a lever, as in the first case.
3rd The patient is set astride of the bedpost, grasping it with his hands; extention is then made, and while it is continued the limb is drawn across the sound one, and rotated at the same time. 4th The thigh is flexed on the trunk, sufficiently to form an acute angle with it and rotation rapidly kept up, until reduction is effected. The indications for the reduction of the fourth injury, are to keep the knee pressed downwards; make the counter-extention as in the first case, and the extention in the same line, in order to draw the thigh

downwards and backwards. Simultaneously with these forces, an effort should be made by means of a towel placed around the thigh, to lift the head of the bone over the pubis, or acetabulum; at which time the surgeon should rotate the thigh inwards, which will tend to send the ball backwards. There are numerous modes of relaxing the muscular system, such as bleeding, antimony, etc., which I have not mentioned; from the fact of their being almost entirely superseded by chloroform.

"My task is done — my song hath ceased — my theme
Has died into an echo; and what is writ, is writ,
Would it were worthier!"

An
Inaugural Dissertation
On
Necrosis
Submitted to the examination
Of the
Provost, Regents & Faculty of Physic
Of the
University of Maryland
for the degree
of
Doctor of Medicine
by
John D. Kemp
of
Ohio

This word, the strict meaning of which is only mortification, is, by the general consent of surgeons, confined to an affection of the bones.

The ancients did not distinguish the death of parts of bones from caries: however, necrosis and caries are essentially different; for in necrosis, the affected part of the bone is deprived of vitality; but this is not the case when it is simply carious. Hence, necrosis is exactly similar to mortification of the soft parts; while caries is analagous to ulceration. The term necrosis, which means to put to death, is now, by the consent of surgeons, employed to denote the dead condition of bone. Louis, who was the first to restrict the term necrosis to the death of bone, applied it only to the death of the entire thickness of the bone, and not of the external

or internal part, of which, however, there is frequently complete death, followed by removal.

The disease was formerly known in New England under the name of fever sore, which term, undoubtedly, was given to it because it is generally accompanied, from the very commencement, with a high degree of constitutional irritation and symptomatic fever. The constitutional disturbance, in most cases, being synchronous with the local affection, induced medical men, while the humoral pathology prevailed, to regard the general disease as a fever, and the local affection as nature's remedy, by which she eliminated the peccant humor. The humoral pathologists would, probably, have explained it thus. The fever, in order to expel the morbific matter from the system,

throws it on the part affected, which causes the inflammation and subsequent collection of matter. The bones most liable to be affected by this disease, are the long bones, such as the tibia, the femur, the humerus, the radius, ulna and fibula. However no part of the bony fabric is exempt from its invasions, though some eminent surgeons say they have never seen it in the scapula,* sternum, nor spine. It sometimes, though very rarely occurs in the carpus, metacarpus, tarsus and metatarsus; when found in the short bones it generally has its origin based upon the scrofulous diathesis. The bones of the cranium are not exempt from it, and it often attacks the lower jaw, the clavicle, and ribs, and occasionally, the ~~clavicle~~ scapula and sternum.

* A case of Necrosis of Scapula occurred in the Balto. Infirmary [illegible] also one of Sternum and patella. — J.D.K.

Prof. Nathan Smith, of Yale College, in his observations on the pathology and treatment of necrosis, states that he has seen it in the femur, patella, both bones of the leg, os calcis, metatarsal bones and the bones of the great toe, and according to his experience, would determine the tibia to be the most frequent seat of the disease; next to this, the femur, and then the humerus.

Necrosis attacks the firm and compact part of the bones, as the shafts of the long bones, though, sometimes, we find it affecting the joints but when this is the case, it is the result of disease extended from the shaft of the bone. The difference, of the parts affected, by necrosis and caries, is as we have before stated, that necrosis, for the most part,

attacks that part of the bones which is of a firm compact texture: while caries, on the other hand, is found principally to affect the soft, spongy portions of bone. It may occur at any period of life, and in both sexes, yet it is more commonly met with in young persons from twelve to eighteen years of age.

The causes of necrosis may be divided into external and internal. The former may ~~arise~~ from severe contusions of bone; bad compound fractures; the pressure and irritation of tumors, of abscesses, or of foreign substances, acute ostitis, or periostitis, or the application of strong concentrated acids. It frequently results, also, from severe cold, and occasionally from burns. Experiments have caused necrosis on the lower animals

by destroying the medullary membrane. The internal causes are such as affect the bone through the medium of the constitution. These may be anything which debilitates the ~~bon~~ system, as severe fevers, hence the origin of the term fever sores, small pox, syphilis, and the baneful influence of mercury on the constitution: also, suppression of any discharge too suddenly, as the sudden suppression of perspiration, by the application of cold to the surface, or of the scrofulous diathesis, which is considered the most frequent cause of this disease. The general opinion is, that scrofula is that state of system, which predisposes to necrosis. When this disease commences, the consequent swelling is sometimes very rapid,

and at others very slow, and requires a long time before the parts are much enlarged; but in either instance the pain is excruciating, sometimes sharp and lancinating, at others its acuteness lulls, and it becomes a dull gnawing sensation.
The swelling does not point, but is diffused over a considerable space. When necrosis commences matter is found on the bone, between the external surface of the bone and the periosteum, and simultaneous with this deposition, is a similar deposit made on the inside of the cavity of the bone, between it and the lining membrane of the medullary substance. When this has been once seated, it accumulates to such an extent, as to denude the bone of periosteum for a considerable

distance, before it breaks the membranes and escapes into the soft parts around. The separation of the periosteum will account for the death of the bone that follows such changes; this membrane being that one which nourishes the bone through the medium of the capillaries that put off from it to its substance. consequently, when pus is formed, these minute vessels are broken off, and their functions, thereby, destroyed, and the bone dies for the want of nourishment.

The periosteum in its healthy state has very little sensibility, but when it becomes once inflamed, and put upon the stretch by the accumulated matter that is deposited between it and the bone, it becomes one of the most irritable, and gives the keenest

pain of any membrane in the body. Hence, in the affection of this tissue and consequent necrosis, the patient complains of the most severe and excruciating torture, high inflammatory fever, preceded by a succession of chills, (when to the touch the skin is hot and dry, hard, frequent pulse, loss of appetite, and increase of thirst, flushed face, and if the disease be extensive, delirium and almost entire absence of sleep. These symptoms continue until the matter makes its way through the periosteum and appears on the external part of the limb. Then the discharge is more or less in quantity, and continues a variable period of time, depending on the amount of death present.
When this stage is ushered in,

other constitutional symptoms exhibit themselves, such as loss of flesh, hectic fever, night sweats, great debility, and general depravity of the whole system, sometimes the long continuance of this constant drain from the discharging orifices brings on cough, haemorrhage from the lungs, and thus develops the latent tubercular diathesis, which soon relieves the poor victim from his suffering condition. The symptoms of necrosis may differ in persons affected, according as it affects persons of different constitutions, brought on by the causes, external, or internal. &c. For convenience surgeons have divided the disease into several distinct forms, of which, I shall notice only four. 1st. That form which generally occurs in

a person of a scrofulous diathesis, and which generally affects the short bones. 2nd, External necrosis, or that form in which there is death only of the outer lamella, or where the disease is only superficial, and does not extend through the whole thickness of the shell of the bone. The flat bones as those of the cranium, or scapula are sometimes attacked by this form. The 3rd form, or internal necrosis is that form which destroys the internal part of a bone; and in which the cortex or outer shell is not affected. The 4th form, or general necrosis is that in which the whole thickness of a bone perishes. The first form generally commences with an indolent swelling, unattended with much pain or constitutional disturbance.

The swelling is at first hard, but after sometime it becomes edematous, and at length in consequence of the collection of a thin ichorous fluid in the part, fluctuates on pressure; and if a probe be introduced, the bone will be felt rough, and divested of its periosteum. In this form there is much irritation, which by its long continuance, may be the cause of bringing on hectic fever, and rendering the aperture incapable of healing, also in which there is great apprehension of death or amputation, if the disease be very extensive, the constitution feeble, or the articulations affected.

The symptoms of the second form depend upon the cause of the disease, which is often an acute abscess, or acute periostitis, or acute ostitis. A small abscess

may occur in the soft parts, which, if left to nature, discharges itself. If a probe be introduced the bone is found to be bare, and a part, perhaps, loose. The aperture does not heal until the sequestrum is removed, but becomes what is technically called a fistula. The manner in which the sequestrum is removed, bears an analogy to the removal of sloughs from the soft parts. The aperture now heals by granulation in the same manner as in simple ulcer of bone. Some writers call this form exfoliation. In the third form, or internal necrosis matter is formed on the bone, between it and the medullary membrane, and is characterized by most excruciating pain, supposed to arise from the resistance offered by the cortex to the swelling of

the inflamed part. In this form the patient is sometimes much debilitated, in consequence of the severity of the inflammatory fever, the swelling is exceedingly hard and diffused, which depends on the swollen condition of the bone. It also continues for a variable period of time, before anything unnatural is observed in the soft parts, but in them an abscess gradually forms, and the pain is not increased upon handling the limb, as in the other forms of this disease. In the fourth form, or general necrosis, one of the earliest symptoms is pain, of an excruciating, grinding, bursting character. The pain is constant, and followed by a swelling which is diffused, it appears to have no distinct bounds,

and is generally greater about the middle of the bone than elsewhere. There is an effusion between the periosteum and the bone, and the thickening of the periosteum itself, which at first renders the swelling doughy and elastic. This is followed by a soft swelling, which is less diffused, and attended with fluctuation, and presents the ordinary local symptoms of an acute abscess, which if permitted finds an outlet for itself, if a probe be introduced after the contents of the abscess are discharged, the bone will be found to be bare, and ultimately becomes loose. The pus is generally thick, yellow, and of a healthy, purulent caracter.

The sequestrum or dead portion of bone, when not exposed to the

atmosphere through the soft parts or situated at the bottom of a large ulcer, always is of an ivory white appearance; but, if in consequence of the action of the air, or situation at the bottom of an ulcer, it is of a dark brown or even black color. In general necrosis, that is, when the whole thickness or shaft perishes, the sequestrum is situated within the newly deposited bone; or in other words, the new bone surrounds or embraces the sequestrum, which is observed to be somewhat reduced in size in comparison with the original bone. The separation is effected by parts surrounding the dead portion becoming preternaturally vascular. A groove is next formed all round the sequestrum, which is generally believed to be produced by the action of the absorbents of the ad-

joining living bone, or, the groove is formed by the absorption of that part of the living bone which is contiguous to the dead. The earthy part of the bone is first taken away, and then its animal part. The groove commences on the surface, and extends gradually more and more deeply, until the dead portion is completely undermined and detached. After the bone has been removed by the efforts of nature, or the assistance of art it becomes perfectly restored by new deposit. This restoration of bone is not accidental, but it is as much the result of natural healthy action as is the production of perfect continuity of a broken limb. Coagulable lymph is poured out, and then converted into cartilage: at this stage of ossification it would be improper to attempt a removal of the dead bone, but as soon as this ossifi

is converted into bone then an operation can be performed for the relief of nature with safety; flat bones, when once destroyed are never perfectly restored. if part of the skull ~~be~~ removed by the trephine necrosis, or any other means it will never be perfectly restored. In depraved constitutions reproduction is very tardy or entirely absent. In cases of necrosis the old periosteum still remains, and fulfills its functions in an imperfect manner, but when the periosteum is entirely absent this deficiency is supplied by the neighboring soft parts, and new periosteum is reproduced.

It appears to be a matter of fact, that when necrosis is attended with the destruction of the bone and of the medullary membrane, the bone may be regenerated from three sources, namely, from the

periosteum which invests the old bone, or from the articular ends of the old bone, or, if the periosteum is destroyed, from the soft parts which surround it.

Treatment.— If the surgeon be called to the case in its early stage, preventive treatment should be first employed with an activity proportioned to the severity of the symptoms, and the strength of the patient. The antiphlogistic treatment, if the constitution is in a condition to bear it, such as depletion, cathartics, sometimes emetics, and the topical application of blisters, evaporating lotions and cataplasms, may be resorted to in order to supplant the diseased action. But there are but few cases in which the inflammation is seated in, or on the bone that-

will yield to this treatment without suppuration.
If the patient complains of the symptoms before described and the surgeon feels satisfied that purulent matter is forming or already formed between the periosteum and external surface of the bone, an incision should be made down through the soft parts to the bone, just as directly and freely as one would do through the investing membrane of any of the bones of the hand when symptoms of a paronychia were present. When this treatment is once adopted, the pus is discharged, and the pain almost instantly ceases, if matter has formed simultaneously in the cavities of the bone, then it would be necessary to let it out by a small trephine passed through the bone

to the medullary substance, afterwards dress the wound with simple dressing, and keep it open until it heal from the bottom of the incision to the surface. It was formerly customary among Surgeons to use very painful and destructive remedies, such as Nit. Acid, Caustic Potash, the actual Cautery, &c.

It is well enough to apply injections of Iodine, Corrosive sublimate, or any remedies calculated to stimulate the lymphatic vessels, and cause them to bring about the desired change in a shorter period of time, but they should not be applied to the affected bone directly. Attempts should be made to remove the original cause of the disease, alleviate the aggravated symptoms, support the strength of the patient,

and improve the constitution but when the sequestrum becomes in a proper state it should be removed without delay. The condition of the sequestrum and the state of the new bone determine the proper time for the interference of art. The operation should not be performed too soon, for the new bone is in a soft condition and may be broken up by the slightest violence. Yet the necessary assistance must not be withheld, if the constitutional irritation and the suppurative trouble should be enough to endanger the life of the patient, although the bone may be yet soft.

Prof. N. R. Smith recommends operations, and performs them, as soon as he becomes satisfied that nature is doing

her interest and cannot succeed only by a very long and tedious process, and much suffering, and loss of strength on the part of the patient; he recommends the removal of the dead bone as soon as possible, even if it be not detached. The instruments generally employed are the trephine, Hey's saw, bone forceps, bone nippers, chisel, mallet, &c.

But the removal of the bone may, as it often does, cause considerable laceration of the soft parts; as a consequence, pain, and nervous prostration, yet these are but mere temporaries, and trifling, in comparison with the suffering and loss of strength consequent upon a long continuance of the dead bone in the system. The dead bone

can always be detected by the roughness of its surface, by the sound it gives, when struck with the probe, by its mobility, and by its giving pain upon pressure, which is owing to the keen sensibility of the young granulations situated around and beneath the detached bone. When the sequestrum is removed the opening should be kept free, by lint inserted into the wound in order that spicula of bone that may remain, as well as purulent matter, should have opportunity to pass out. In a short time the discharge ceases, and there has been nothing more than an incised wound, which heals readily when the foreign substance is gone; but if its removal should be left alone

to the efforts of nature, it would require months and even years to effect what could be accomplished in a few minutes by the Surgeon.

When necrosis occurs as the result of scrofula, or the effects of Syphilis, constitutional treatment is highly necessary such as Iodine, especially the Iodid of potassium, with Sarsaparilla, which will be the very best remedy we can employ.

If the system be much debilitated in consequence of a long suppuration pain loss of appetite, tonics are in much demand, and, especially some of the preparations of Iron, as the phosphate, and iodide.

The great object in the treatment of Necrosis, is to prevent it, if possible upon its first appearance

They appear, however, as if failed to cause the neighboring joints support the strength, remove sequestra, and give the limb proper support, and yet when a large sequestrum is formed. When the health has been undermined, fracture taken place, or neighboring joints have become greatly diseased, it is impossible to save the limb, amputate in order to save life.

J. D. Kemp.

An Inaugural Dissertation
on
Venesection
submitted to the examination
of the
Provost, Regents & Faculty of Physic,
of the
University of Maryland
for the
Degree of Doctor of Medicine
by
Benj. W. Clagett
of
Maryland,
1856.

To

Doctor George T. Wright,
my earliest instructor in the
Science of Medicine,
is this humble production
respectfully inscribed,
as a mark of filial regard,
by his obedient and
much obliged Son,

The

Author.
("Ed")

Venesection – its physiological and therapeutic Effects.

Realizing the intrinsic importance of the subject under consideration, which is selected as the basis of a few concise remarks, and believing it to be worthy of the students most liberal consideration and earnest attention, the writer proceeds with timidity to the accomplishment of his task.

Venesection considered abstractedly may not with justice make a great demand upon the students attention, but its applicability to diseases is of no more importance; in other words a proper discrimination to shew us when and to what extent it should be used, is as alike indispensable for the physician's reputation, as it is vital to the welfare of his patients. Nor

what is more likely to reflect censure upon the conduct of the physician than the too frequent and almost universal resort to the lancet; or what is more likely to be productive of injurious and even fatal consequences than the careless and indiscriminate use of the same. Surely the physician, who, without a thorough investigation into the symptoms of the case he has to treat, would notwithstanding simply venesection, could not reasonably look for an amelioration of the symptoms, and, were it should circumstances be so propitious as to admit of a successful termination of the case, it would not mitigate his rashness, nor should it palliate his deserved condemnation.

We do not intend to devote the few brief pages of this thesis

in defence of the therapeutical agency of the lancet, well knowing that its own intrinsic worth is a sufficient guarantee against the spirit of prejudiced opinion which has been so unmercifully heaped upon it. We all know that independent of every evil which may be attributed to an injudicious use of this agent, blood letting is still of inestimable value, yea, in many instances, the "last resort" of a dying, or upon whose patient use hangs the final issue of life or death.

How often when clouds of disease overcast the horizon of the patient and impending death appears ready to sever the last link which connects soul & body, and to consign to oblivious annihilation the physical man, the well timed and judicious invocation

of the lancet, like the golden rays of the effulgent sun of day, dispells these adverse clouds, banishes upon the chain of morbid sensations, reinstates hope - the best of mental tonics - and finally makes the once hopeless and despairing the happy recipient of life's greatest blessing - health. How can the most enthusiastic advocate of the lancet wish for a more cogent and palpable demonstration of its true significance than that furnished by the impartial and irrefutable pages of experience. Surely the most incredulous must recant, when actual observation discloses the commissionary and real efficacy of the lancet, and practice verifies the most exalted portrayings of a vivid imagination. For what is more demonstrable - and at the same time -

a blindly grand-the [illegible] of the [illegible] for good, as [illegible] in the sudden and immediate restitution of both the mental and physical faculties to the state of equilibrium from a state of delirious excitement, characterized by convulsions, suffused face, turgescence of blood vessels and an almost maniacal countenance. Certain it is that blood-letting is wholly indispensable here. The skeptical venesectionist may resort to his favorite medicines, and may inculcate a strict anti-phlogistic regimen, but he will certainly have the dissatisfaction of seeing his [illegible] fail and of witnessing the inevitable dissolution of his patient under such a system of medication. B. + the scientific practitioner, being acquainted with the path-

ological condition upon which the symptoms depend, knows that the primary indication is to empty the blood vessels of their preternatural accumulation of blood, and this removing this by venæsection the symptoms of disease are rapidly superseded by others indicative of a mild and tranquil convalescence.

But we are digressing too much from the true spirit of a Thesis. It is not our intention to write an encomium upon the lancet, for this is both useless and inexpedient; and moreover as its reputation is indelibly inscribed upon the imperishable rock of experience, and as its fame is already upon the lips of every unprejudiced member of the medical profession, to attempt (were it in our power) would be a work of supererogation. General blood-letting

then we reiterate, when practised with discrimination becomes in many instances an indispensable agent in the treatment of diseases. We are compelled however to acknowledge that it has at times been the cause of much detriment to the patient, yea in some instances we fear it has given the too sad demonstration of its power by consigning to premature graves some of our confraternity, who have been the blundering instrument in the bringing about of such an untoward event; for we do believe that the vestiges of the lancet are but the startling testimonies of its injudicious use. But surely its abuse will not be an argument in favour of its ex-

clusion from the rules of practice; for if this were the case, there would scarcely be left an article in the pharmacopœia or "Materia Medica" which would not have been ere this condemned and expunged. As it is, it is evident that in such cases censure is due only to the practitioner and that the agent, no matter how abused, should not on this account be less deserving of the confidence of the judicious physician. The occasional deleterious results of the latest known remedies serve of warning to the wise, and to the general purpose of the acquisition of knowledge, prompts far better than mere gold; for they plainly set forth the expediency of bringing mature judgement into requisition in order that we may discriminate aright upon the propriety of its use; and

moreover it exhibits the utter falsity of that ancient maxim which recommends blood-letting in all cases of doubt, and which would thus outrage every sense of modern justice by not throwing the benefit of a doubt upon the side of mercy.

Too ready to use the lancet has been too much characteristic of the ancient physicians, and so credulous was their faith in its beneficial potency, that it was considered a remedy for every pain, a cure for every disease. The amount of injury that the lancet has inflicted upon mankind in the hands of ignorant & prejudiced, who indiscriminately resorted to it alike in asthenic as in sthenic forms of disease is incalculable.

The maxim "do something" is a very pernicious one in Medicine and under its sanction the lancet has

been too frequently resorted to as the means to carry out this extremely absurd dogma. So strongly was popular opinion in favor of the use of the lancet, that the physician who did not resort to it on almost all occasions was deemed guilty of injustice to his patients and of culpable negligence in not availing himself of the only efficacious means which was supposed to be at his command. But happily for the honor of medicine and for the good of mankind this absurd dogma of antiquity has become exploded and venesection is now placed upon a rational basis. The deleterious effects of blood-letting so often heretofore caused by the indiscriminate use of the lancet, has shaken even the faith of enthusiasts, and has caused them to ponder while ere they deal with

such a [illegible] good. Practice [illegible]
[illegible]
[illegible] applied is so conspicuous for the amount of evil it occasions, as it is noted for its readiness and ability to do good [illegible] its use is [illegible] by prudence and common sense.

But [illegible]
[illegible]
the use of the lancet, we would have it inferred by no means that we advocate the opposite extreme; for we believe that much evil has resulted in many instances from its omission, in consequence of unnecessary caution, when the exigencies of the occasions imperatively demanded its use. While we shall ever remain a pleasant to the [illegible] of practice, [illegible] we have no [illegible] in the [illegible]

for every indication, regardless of the nature or character of the disease, we are equally averse to that system which would have us to employ blood-letting only as a dernier resort after other measures have failed. We believe that [illegible] [illegible] indicated, to procrastinate the use of this agent is to [illegible] the safety of the patient, inasmuch as in diseases of an [illegible] character the vital manifestations are so rapidly modified, that the abstraction of blood, no matter how strongly it may have been indicated at the inception of the disease, may soon become [illegible] inadmissable, and thus to await the effects of other measures before making use of the lancet, would certainly be an acknowledgement upon the part of the practitioner of the want of discrimination.

Without any further preliminary observations we will proceed at once to a more particular consideration of this highly important subject. And first we will endeavor to explain the effect and "modus operandi" of blood-letting. — The effects of venesection are unequivocally those of sedation, and this is not only capable of experience, but the reason appears obvious. As the exciting and calorific properties of the blood depend upon the ratio of the red-corpuscles to the aggregate quantity of that fluid, the diminution of these red-corpuscles by blood-letting, must necessarily render this fluid less stimulating to the nervous radicles with which it comes in contact, and thus [illegible] portion of this stimulus, less nervous influx is transmitted to the various parts of the system and a state of

sedation is thus [illegible]. But this sedation is not in consequence of any direct or physiological effect of blood-letting, but the nervous system counteracting the nervous turmoil or neuralgia, which may have been present, but it is mainly induced by the reduction of the stimulus—the red-corpuscles.

"We say 'mainly induced', for it appears probable that venesection may owe a part of its beneficial effects to the mere mechanical removal of the hyperæmic condition of the blood. ~~[illegible]~~ [illegible] slight [illegible] may be [illegible] with [illegible] the circulation [illegible] it is under the influence of inflammatory excitement, inordinately [illegible] the blood vessels, and throwing [illegible] form of [illegible] turmoil, we are disposed to believe that the

abstraction of a quantity of the fluid and thereby diminishing the momentum of the circulation — cannot be productive of some amelioration of these symptoms independent of the benefits resulting from its property of diminishing the relative bulk of the red corpuscles, held up in the circulating fluid. But, as this bleeding venesection is performed with a view to its sedative effect, not when pushed beyond its legitimate bounds, it is well calculated to give origin to a succession of fainting, or epileptic spasms, or those desired. As for instance in consequence of a too profuse reduction of blood, symptoms of preternatural activity of the blood vessels may ensue, & the visions and many of the characteristics of general fever may be present, which to a casual observer would be amply indicative for a repetition of the operation,

while at the same time the patient may be almost apoplectic, the symptoms being of a paralytic character and depending upon an already possessed state of the nervous system. The fact being known that a neuropathic state of the system may present many of the symptoms of plethora and that bleeding in such cases will not fail to augment the pathological condition, the incident the exercising of being ever on the alert to guard against an error which will necessarily be productive of deleterious and perhaps fatal consequences. Pathology has shed much light upon this department of practice and enables us in many instances to see with clearness and to act rationally where clouds of uncertainty darkened the vista of our predecessors and obscured the true nature of diseases. Formerly

coma and convulsions were considered to be invariable signs of cerebral "congestion" and consequently always demanding blood-letting; but modern pathologists affirm that notwithstanding such is often the case, there are many instances in which post mortem investigations have discovered not the least sign of, either in, or of the characteristic lesions of inflammation. "Amongst the immediate effects of loss of blood, Dr. Marshall Hall enumerates, - syncope, convulsions, delirium, coma and sudden dissolution," and yet according to those who consider blood-letting as the only indication [illegible] and convulsions, the very means that is best calculated to [illegible] pathological condition [illegible] this symptomatic disease, [illegible] prescribed - the cause instituted

for the remedy: it rational, and a treatment is to say the least quite equivocal. Convulsions too so prevalent among children are very often of a nervous character depending upon irritation, such as worms in the alimentary canal, teething &c, and not unfrequently they are owing to constitutional predispositions. In such cases it is obvious the indications are to remove the cause if practicable, and to prevent unhealthy nervous action by appropriate stimulants, and not to take away blood, which would inevitably be followed by injurious consequences, if indeed it does not prove to be the prelude to death.

Again there is an infantile malady termed Hydrocephaloid, so closely simulating acute Hydrocephalus in its external manifestations, as to demand the most careful observation for its

correct diagnosis. It also is one of symptoms allied to those of acute inflammation. That it has often been confounded with that disease, we experienced practitioners, but Pathology has proved its independence of inflammation and consequently demands a different, directed therapeutics. As it in many instances depends upon an anemic or debilitated state of the entire constitution — which is presumed from excessive flabbiness of the skin, diminution of the bulk of its lips together with its emaciated appearance — tonics together with a proper alimentation would seem to be rational indications, and experience has proven them to be measures best conducive to the desired end.

With these truths before us, how indispensable does it appear, if we

wish to do good on the one hand & escape censure on the other, to be able to discriminate upon all occasions between the propriety and the impropriety of the lancet's use. By the ancients, we have already observed how many memorials must have been the injurious sequelæ to the lancet, since recent pathological analysis has shown that their opinions concerning the pathology of diseases were in many instances quite fallacious; and among the moderns, there is every reason to believe that the lancet is too often indiscriminately resorted to, and that its utter discomfiture in mitigating the sufferings of the patient, has in many instances been in consequence of its injudicious use.

To know then when and to what extent blood-letting should be practiced, ought to be no secondary consideration with the practitioner.

To meet these points of interest, we propose to submit for our present solution these two consecutive propositions — 1st — When should the lancet be used? To what extent should blood-letting be invoked?

To answer the first interrogative — when should the lancet be used — we shall at once briefly proceed. — In plain and unequivocal terms we would say that the lancet should be used whenever it is in reality indicated and not without, and this calls for a consideration of its indications.

It is obvious to all that our mere acquaintance with the name of a disease we know to treat will not furnish a positive indication for its use; for diseases of the same name present different symptoms at different times, and consequently a disease that would require the use of the lancet at one time would on another occasion

positively contra-indicate its use, and "vice versa". So then it is evident that our mere acquaintance with the name of the disease is but of little utility in practice. To know whether the disease is sthenic or asthenic, inflammatory or non-inflammatory is of more practical utility to the practitioner than can possibly be his acquaintance with its nosology; for after all it is the character of the disease that more immediately concerns the therapeutist.

But, even here, although our knowledge of the fact that the disease is asthenic would make us very cautious in instituting depletory measures, or that the disease is inflammatory would weigh much in favor of blood-letting, notwithstanding we are taught by men of experience that discretion and sound judgement are invariable prerequisites to the conservative use of the lancet.

For although inflammations generally require the loss of more or less blood, yet this is not invariable the case, as it is well known that inflammation occurring in a vigorous state of the system may demand copious depletion, while on the other hand if originating in a degenerated condition of the constitution the smallest quantity of blood lost might prove exceedingly detrimental. Much has been said of the pulse as presenting indications for blood-letting and notwithstanding they are upon the whole our best and most truthful guides, yet experience has decided that they are by no means infallible. For we have already observed that the pulse may be apparently full & vigorous under neuropathic excitement, in which cases of course bleeding would be inadmissable, while on the other hand it may be feeble and slender, as

in those cases of acute gastritis accompanied with excessive nausea, the pulse being rendered feeble in consequence of the sedation superinduced by the state of nausea — and yet venesection may be judiciously resorted to. But notwithstanding these exceptional cases, the pulse often yields valuable indications, and these exceptions but demonstrate the impropriety of looking exclusively to it upon all occasions. Without entering here into a consideration of those almost exhaustless divisions and subdivisions of the pulse, which demand for their observance a tact so exquisitely sensible and a memory so retentive, that but a few indeed are thus fortunately constituted by nature as to be able to appreciate such extremely delicate lines of distinction, it will suffice for our purpose to state that a strong, full and resisting pulse is upon

the whole our most reliable indication for the lancet - bearing in mind at the same time the exceptions previously specified and commented upon.

Age also has considerable bearing upon the proposition under consideration. Both extremes of life present diminished tolerance for venesection. In the aged, the nutrition and assimilative processes being impaired and consequently the volume of blood being proportionately diminished, are facts which should admonish us to caution in the use of depletory measures. In children the nervous system is exceedingly impressible, constituting a proclivity to diseases of a nervous character, and consequently blood-letting is not so often demanded in them as in adult age; and moreover particular caution is requisite not to carry depletion too far in this period of life, for fear of exciting this

neuropathic diathesis into morbid action. And besides, the state or condition of the constitution, the previous habits of the patient, &c &c are points of importance, and as such should not escape the attention of the practitioner.

In short then there is no one infallible indication for the lancet and the practitioner must in all instances be actuated by prudence and discretion - taking into consideration the contra-indications as well as the indications for its use; and ever holding as an inviolable rule to abstain from general blood-letting in all cases of doubt, resorting in such cases to local bleeding or to some other means of medication less dangerous and more rational than the blind and indiscriminate use of so powerful an agent.

We come now to the consideration of the second proposition; - viz, to what extent venesection should be carried.

To what extent blood-letting should be pushed has long been a desideratum in practice involving much discrepancy of opinions, and even now there are to be found some who still adhere to the old practice of bleeding to full syncope notwithstanding that experience has fairly and conclusively demonstrated its impropriety. The marked apparent mitigation of the symptoms of inflammation temporarily induced by such copious depletions has tended somewhat to strengthen this erroneous mode of practice in the eyes of its advocates, but then the state of undue reaction invariably supervening upon such excessive depletions would have shaken the faith of its advocates a little had not preconceived notions blinded them and their unlimited faith caused them to refer this reaction exclusively to increased activity of the inflam-

mation, rather than as resulting from inordinate depletion. It is therefore desireable, as a rule, not to push the lancet to profound and fully developed syncope, for by so doing there is a liability to arrest the line of demarcation which separates sedation from exhaustion, and instead of having the desired sedation irregular, nervous action may be developed much to the injury of the patient and greatly to the detriment of the patient. In some instances however when it is necessary to use the lancet with the lancet and there is a suspected danger of inordinate reaction, or in cases of great nervous irritability from whom it becomes expedient to take blood, a sedative dose of opium together with a preparation of Antimony administered conjointly with the use of the lancet will generally succeed in preventing

inferiorous reaction; for if while we deplete the vascular we sedate the nervous system, we maintain the normal relations of these two systems and obviate the otherwise deleterious results of copious vascular depletions. Again although it may not be judicious to bleed to full syncope, it is occasionally advisable to make a marked impression upon the system. In order to accomplish this end, especially in asthenic patients from whom it is not safe to abstract much blood, blood should be drawn from a large orifice so that the system cannot habituate itself to the loss of blood as readily as when it is taken away slowly, but must giving appreciable its reduction. ---

The quantity of blood necessary to be abstracted in order to produce syncope is materially influenced by the character of the diseased manifestations - inflammations giving a much greater tal-

erance to the lancet than other diseases. The cause of this increased tolerance in inflammations is supposed to be owing to "increased irritability of the heart and tonicity of the arteries, which maintain a sufficient force and tension to preserve the circulation, especially through the brain, even when much blood is lost!" Temperament also has its bearing upon the quantity of blood to be taken. Inflammations originating in persons of a sanguineous temperament would require, on their amelioration, the abstraction of a quantity of blood which would, under other circumstances, be quite sufficient to the wants of the patient. We presume that there can be no specified quantity of blood laid down for our guide and limitation in every disease, but perhaps we would not be far amiss to state that from

16-20 ounces is the average quantity taken; which of course is to be augmented or diminished according to the circumstances of the case, and the judgement of the practitioners.

The repetition of blood-letting is another very important consideration. The buffy coat was long considered a sure sign of inflammation, and as there were some who thought the lancet to be the only anti-phlogistic, venesection by blood-letting was deemed requisite wherever and so long as the blood drawn exhibited this buffy appearance. It was therefore formerly laid down as a rule to repeat the use of the lancet so long as the blood drawn presented the buffy coat. But it is now known that this is no infallible sign, and were the rule carried out in every instance it would often be productive of fatal results. That the buffy coat is not a sure sign of inflam-

nation we need no farther demonstration, since it is perceptable in pregnancy although the act of utero-gestation is compatable with perfect health. It is moreover present in persons of excessive nervous irritability independent of inflammation; and again it is present in diseases - such as acute Rheumatism - in which, although blood-letting may be, at times, demanded, yet they do not require that active depletion which inflammations call for. Moreover observation has proven that blood drawn would exhibit this "inflammatory crust" immediately antecedent to full syncope. So then it is evident that this buffy coat taken by itself presents no indication for venesection, but it must be taken conjointly with other symptoms ere such an indication can be present.